

August 1960  
Volume 67 Number 10  
Price 3s. 6d.

# RIBA JOURNAL

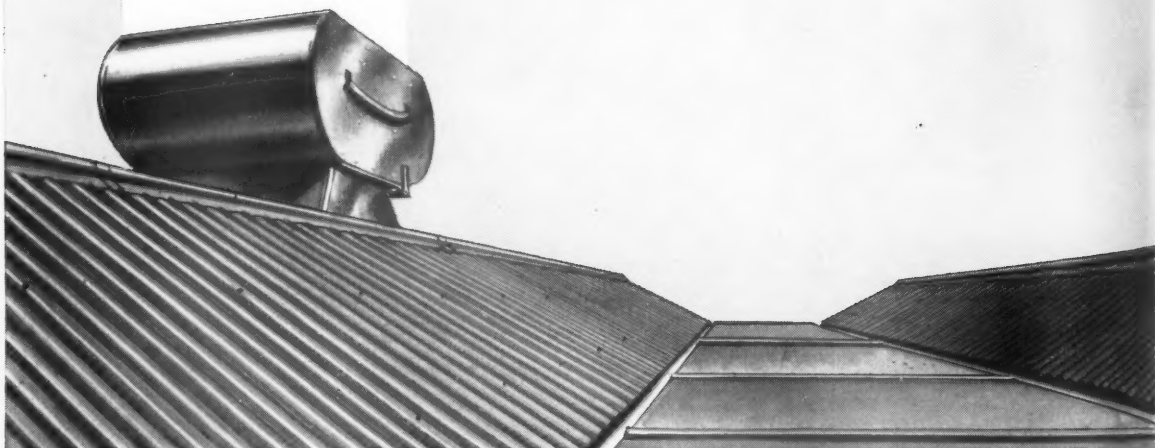
Architecture Library



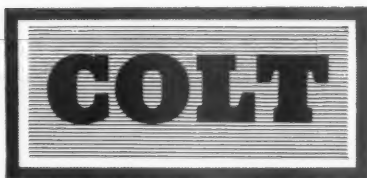
Architecture Library

Architecture Library

— "Oops!  
I never knew  
Colt made  
power ventilators  
too" —



They do! For Colt have a ventilator, natural or powered, to meet every kind of problem—including a range of high powered ventilators such as the Upward Discharge unit shown here. Let the Colt Ventilation Service advise you. Powered or natural, or a combination of both—the Colt engineer will tell you which system is best and most economical for you. Send for a free manual to Dept. 37



The power behind  
natural ventilation and naturally  
behind powered ventilation too!

COLT VENTILATION LIMITED · SURBITON · SURREY · Telephone: ELMbridge 0161







**THIS COMPANY** is responsible for the design and installation of all the mechanical engineering services, *twenty-two in all including full air conditioning*, in the new offices of the Shell International Petroleum Company Limited on the South Bank.

*Chartered Architects:*

*Easton & Robertson, Cusdin, Preston & Smith.*

*Main Contractors:*

*Sir Robert McAlpine & Sons Ltd.*

# HADEN

Heating, Air Conditioning, Piping  
and Sanitary Engineers

**G. N. HADEN & SONS LIMITED**

7/12 Tavistock Square, London WC1.

branches throughout the United Kingdom and Overseas

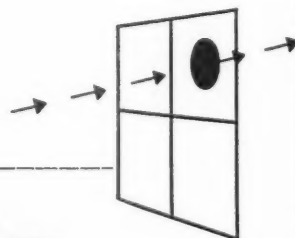
TA 5803

For unit  
ventilation  
specify  
**Vent-Axia**



*Simple to instal in window, wall or roof*

- Intake, Extract and **REVERSIBLE** units.
- Made in four sizes, impellers 6", 7½", 9", 12".
- Volume of air moved - from 125 - 1,000 C.F.M.
- Speed control, Iris Shutter, Dark Room and other attachments for all models.
- Quiet, Efficient and Economical.
- Suitable for use in any climate.



FOR BETTER AIR CONDITIONS

***Vent-Axia***

*Simplest form of controlled ventilation*

**60 ROCHESTER ROW • LONDON • S.W.1**

*Telephone: VICToria 2244*

BRANCHES AT: GLASGOW • MANCHESTER • BIRMINGHAM • LEEDS • NEWCASTLE-UPON-TYNE • BRISTOL

# WHICH WAY WOULD YOU TAKE THE PYLONS?



*Down in the valley, the town needs more power. The time's come to bring in a power line from the Grid. That means pylons, right across these fields, and on down into the valley.*

There are perhaps a hundred paths the pylons could follow. *One* must be chosen. Not plotted arbitrarily across a map, but thoughtfully, carefully sited, so that pylons and cable strike the best possible balance with the landscape.

The Central Electricity Generating Board are just as concerned about this as they are about bringing in the

power. For the nation has charged the Board with a double duty. Not only to maintain an efficient, economical electricity supply, but also to preserve the amenities of the country as they go.

That's why the new line will be planned so that it follows the dark background of a wood here; skirts a village there; crosses skylines in the most inconspicuous way to be found; and eventually reaches the town through its industrial suburbs.



THE CENTRAL ELECTRICITY GENERATING BOARD



# Glazed Vitrified Clay Pipes

Drainage Pipes must be strong and smooth. They must resist the effects of abnormal pressures and of abrasives. They must be proof against acid-forming gases inside the pipes and acidic substances in the soil. They must have a low and non-progressive rate of absorption. They must retain their shape indefinitely. They must stay down—maybe for centuries.

Nobody knows what virulent effluent future industrial development may introduce into today's drains.

There is only one safe choice. Put down **Glazed Vitrified Clay Pipes**—there is no adequate substitute.

*For information write to The Secretary*  
**NATIONAL SALT GLAZED PIPE MANUFACTURERS' ASSOCIATION**  
 Hanover Court, Hanover Square, LONDON, W.1.  
 Telephone MAYfair 0364.





Attuned  
to  
Responsibility



# Kaye Locks

Having chosen a style, every fixture must conform. Kaye Locks and door furniture provide the right combination of modern elegance and traditional reliability for the headquarters of the R.I.B.A. — as well as for many other famous buildings.

#### FOR EVERY APPLICATION

- Hotel Locks
- Mortice Locks
- Sliding Door Locks
- Emergency Door Fittings
- Padlocks
- Latches
- Rim Locks
- Cupboard Locks
- Stabilisers
- Drawer and Desk Locks

#### TECHNICAL PERFECTION

- 4 Lever Locks
- 750 Differs off Levers
- Differs from Levers and Wards are almost unlimited
- Followers are of hard resistant Brass
- Forends are of hard resistant Brass
- Phosphor Bronze Springs to Levers
- The 'K' design, four lever Lock is for greater security
- The Locks can be made in suites with Sub-master and Master Keys

*Photograph by courtesy of the R.I.B.A. Architects: Messrs. Playne & Lacey.*

Illustrated literature is available on request



## Joseph Kaye & Sons Ltd.,

Established 1864

Lock Works, Leeds 10. Telephone : 20887

London Office : 1 Albemarle Street, W.1. Tel : GROsvenor 8206

playing an  
important part  
in the  
expansion of  
the Chemical  
Industry

**Monk**

Building,  
Civil Engineering  
and Reinforced  
Concrete  
Contractors



This new Technical Centre for Joseph Crosfield & Sons, Limited, is just a part of the major expansion programme currently being carried out at their Warrington works.

**A. MONK & COMPANY LIMITED**  
Warrington and London  
Offices at: Hull, Middlesbrough & Stamford

# *...and now* **Metered warm air**

**FOR MULTIPLE HOUSING**

**WARM AIR  
CENTRAL HEATING**  
with ...

- Low cost installation.
- Economical running.
- Temperature and on/off control in each dwelling.
- Tenant pays by meter.



15 STOREY MAISONNETTES, SCEAUX GARDENS, CAMBERWELL. (Photograph by Sam Lambert).  
F. O. Hayes, A.R.I.B.A., Borough Architect. H. C. Connell, A.R.I.B.A., Deputy Borough Architect.  
A. W. Butler, A.R.I.B.A., Senior Architect. H. P. Trenton, A.R.I.B.A., Architect in Charge.

**WEATHERFOIL**

**Metered Heat**

Write for brochure to:

**WEATHERFOIL LTD.**, Head Office: 185 Bath Road, Slough, Buckinghamshire.

Phone: Slough 25561

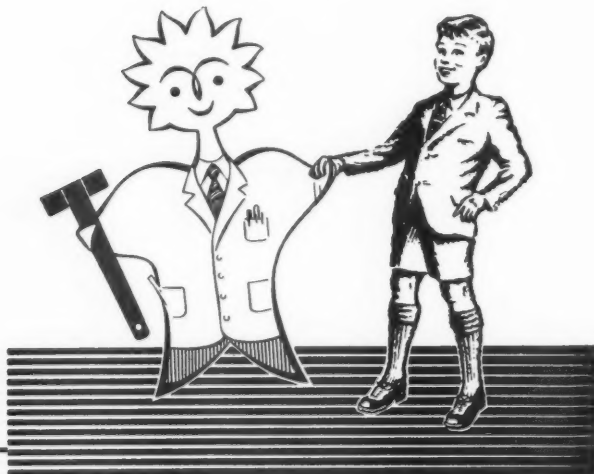
BROADGATE HOUSE, COVENTRY, WARWICKSHIRE. Phone: Coventry 40110.

# it's his future...

## ...backed by **MR. THERM** who Burns to Serve architects and builders

...in all ways. Today, new building materials and new building methods—what of tomorrow? He will grow up with Mr. Therm, for each advance made by the Architect and Builder will be helped by the unceasing research of the Gas Industry and the development of new gas equipment for water heating, space heating and other purposes. Through the twelve Area Gas Boards, the Gas Industry offers an unrivalled free advisory service on fuel to Architects and Builders.

**Write or 'phone your problem to your Gas Board NOW**



Essential to all concerned with the choosing and usage of gas appliances, and kitchen planning for commercial catering . . . The Gas Council's **CATERING HANDBOOK**. Price 4/- from your Area Gas Board.

ISSUED BY THE GAS COUNCIL



cts builders always ...



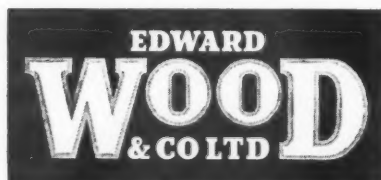
# STEELWORK

## *for Power*

The contract for the Willington 'A' generating station, comprising the supply, delivery and erection of over 5,000 tons of steelwork, provides another vital section in the programme being undertaken by the Central Electricity Generating Board. Optimum co-ordination and ample resources are necessary for the successful completion of such extensive projects.

ENGINEERING CONSULTANTS: Ewbank & Partners, Ltd.,  
10/11 Grosvenor Place, London, S.W.1.

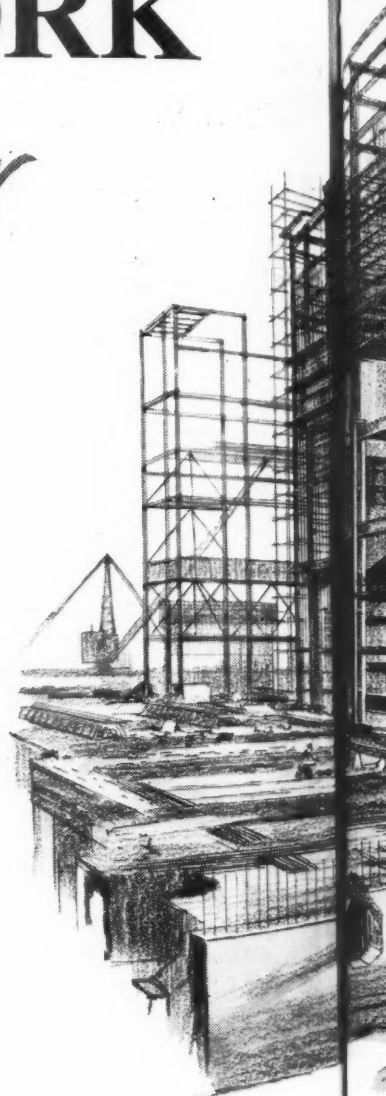
ARCHITECTS: Farmer & Dark, F/R.I.B.A.,  
Romney House, Tufton Street London, S.W.1.

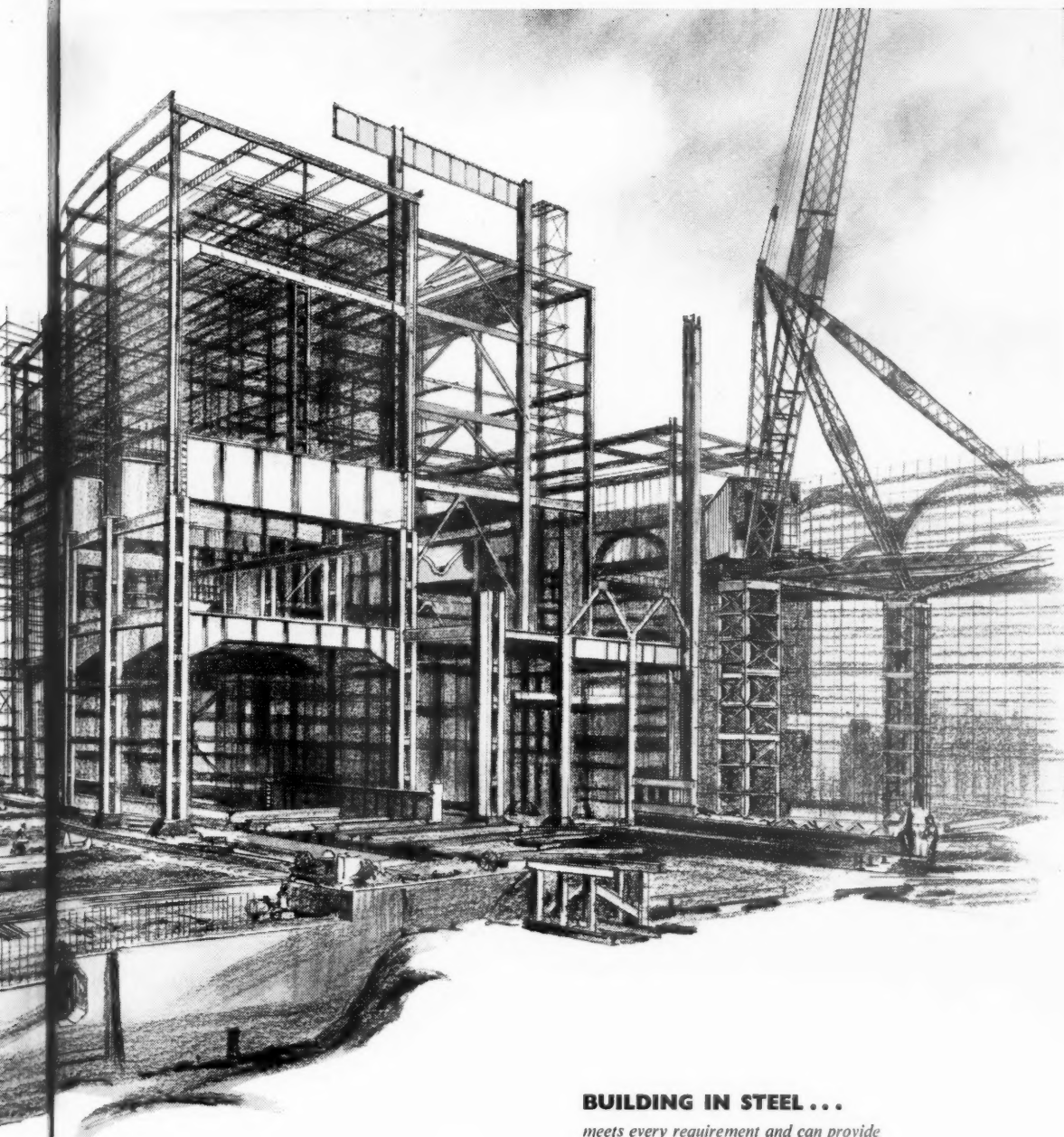


## CONSTRUCTIONAL

*Registered Office and Works:*

OCEAN IRONWORKS • TRAFFORD PARK • MANCHESTER





# **BUILDING IN STEEL . . .**

*meets every requirement and can provide the basis of a storage hut or the shape of a city. Structural steelwork cannot be equalled for strength, endurance, adaptability and cost.*

# **ENGINEERS**

TER 1 Tel: Trafford Park 2341 (10 lines)

London Office: 78 Buckingham Gate, S.W.1. Tel: Abbey 1948/9

WD103

## SALFORD MUNICIPAL DEVELOPMENT

# 1,400,000 'Phorpres' common and facing bricks

Built for Salford Corporation by Direct Works Department this recently completed scheme comprises 711 dwellings in nine 10-storey blocks, three 11-storey blocks, and a single smaller block of six shops with maisonettes above. The scheme was started eighteen months ago.

*City Engineer*—G. A. McWilliam, B. SC., A.M.I.C.E., A.R.I.C.S., M.I.MUN.S., Town Hall, Bexley Square, Salford 3, Lancs.

*Architects*—Cruickshank & Seward, Chartered Architects, 196 Deansgate, Manchester 3.

*Contractors*—City of Salford Direct Works Dept.  
*General Manager*:  
Stephen W. Johnson, F. S.D.C. S. I., M. I. MUN. S. M.,  
Unwin Street, Cross Lane, Salford, Lancs.



MULTI-STOREY FLATS, LOWER KERSAL, SALFORD

## LONDON BRICK COMPANY LIMITED—in the service of the building industry

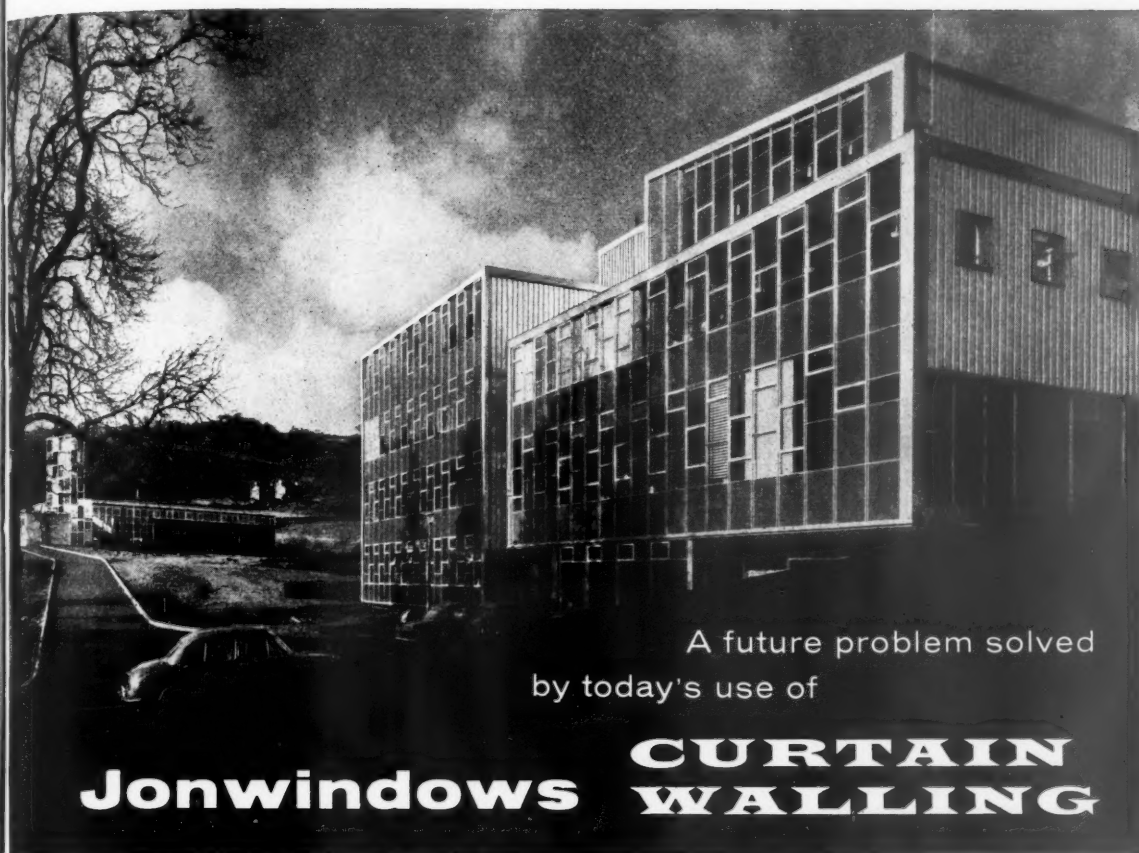


*Head Office*: Africa House, Kingsway, London, W.C.2. Telephone: HOLborn 8282.  
*Midland District Office*: Prudential Buildings, St. Philip's Place, Birmingham 3. Telephone: Central 4141  
*South-Western District Office*: 11 Orchard Street, Bristol 1. Telephone: Bristol 23004/5.  
*Northern District Office*: St. Paul's House, 20-22 St. Paul's Street, Leeds. Telephone: Leeds 20771.



BY APPOINTMENT TO  
HER MAJESTY QUEEN ELIZABETH THE  
BRICK MAKERS





A future problem solved  
by today's use of

## Jonwindows CURTAIN WALLING

### The Ystrad Mynach College of Further Education

This building is situated in a predominantly mining and industrial district, so precautions had to be taken against possible future subsidence. The result is a rigid structure bearing on the ground at a limited number of points, with facilities provided for re-leveling the building by hydraulic jacks. The ground floor slab is not suspended as is the moving superstructure.

To keep the load on the foundation beam as light as possible, Jonwindows Curtain Walling was chosen for the external cladding. Fixing the curtain walling involved many problems. In the first place it hangs from the upper floors and does not even rest on the ground floor slab, being merely anchored there to resist wind and weather. A special sliding joint to allow vertical movement had to be provided at the point of connection between curtain walling and ground floor slab.

Another difficulty is that the 4-storey teaching block is actually two buildings entirely separated by a 3" structural break and which could move either towards or away from each other in the event of subsidence. Curtain walling was even used at this break, a weathered sliding joint in pressed metal trims (a breather joint) being designed to allow for movement—and this joint had to be incorporated wherever the break line was crossed by the curtain walling; in fact it was required in blind boxes, cills, etc., as well, for they had been made firm fixtures to the hanging curtain.

These are but two examples of the difficulties which had to be overcome in one particular job, but Jonwindows Curtain Walling has been developed through such work as this.

The Jonwindows range of standard and purpose-made metal windows and curtain walling will continue to satisfy today's needs and anticipate the needs of tomorrow.

*Architects:* T. Alwyn Lloyd & Gordon, F/A.R.I.B.A.

*(Associate-in-charge:* Alun Roberts, B. Arch., A.R.I.B.A.)

*Consulting Engineers:* Felix J. Samuely & Partners.

*Contractors:* William Moss & Sons Ltd., Cricklewood, London.



**JOHN WILLIAMS OF CARDIFF LTD**

EAST MOORS ROAD, CARDIFF Phone Cardiff 33622 (12 lines) Telex 49303 Grams 'Metal' Cardiff

London

BANK CHAMBERS, FINSBURY PARK, N4

Telephone: ARChway 1622

Telegrams: 'Dissolving' London

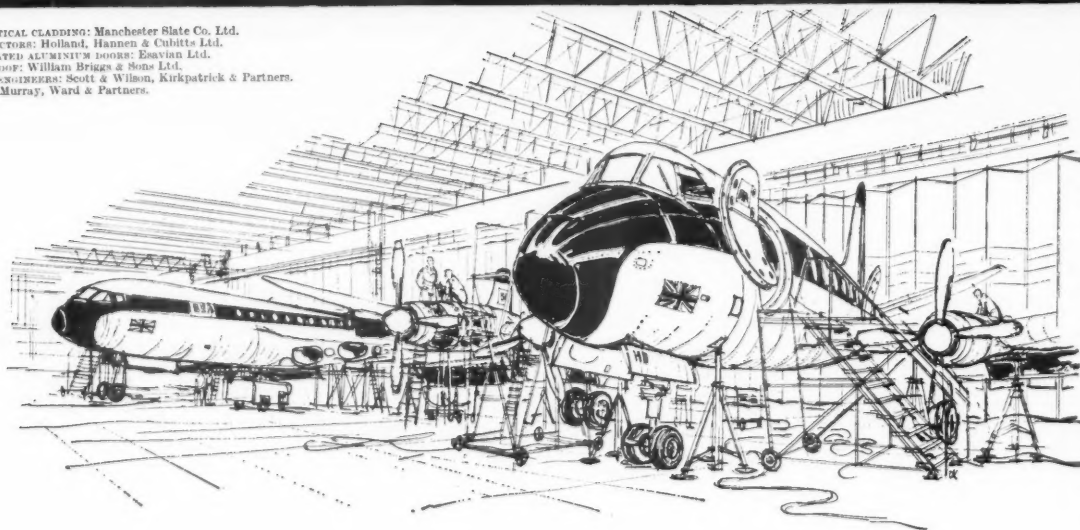
**BEA**

...and behind the name

**Norala**



SHAPRID VERTICAL CLADDING: Manchester Slate Co. Ltd.  
MAIN CONTRACTORS: Holland, Hannen & Cubitts Ltd.  
POWER OPERATED ALUMINIUM DOORS: Esavian Ltd.  
BITUMETAL ROOF: William Briggs & Sons Ltd.  
CONSULTING ENGINEERS: Scott & Wilson, Kirkpatrick & Partners.  
ARCHITECTS: Murray, Ward & Partners.



# aluminium



TBW/T 62

What bigger challenge to architectural ingenuity than a building severely practical in use yet always in the public eye? What better answer than aluminium—Noral aluminium—with its lifelong durability and its lasting good looks!

In the new BEA hangar at London Airport, Noral aluminium is used extensively—nearly 300 tons of it in the roof, doors and walls. More than 25,000 sq. ft. of Noral Snaprib has been used for the walls alone, mostly in the form of 25 ft. lengths. The snap-joint sheets interlock along their full length, need no external fastenings, and are completely leak-proof.

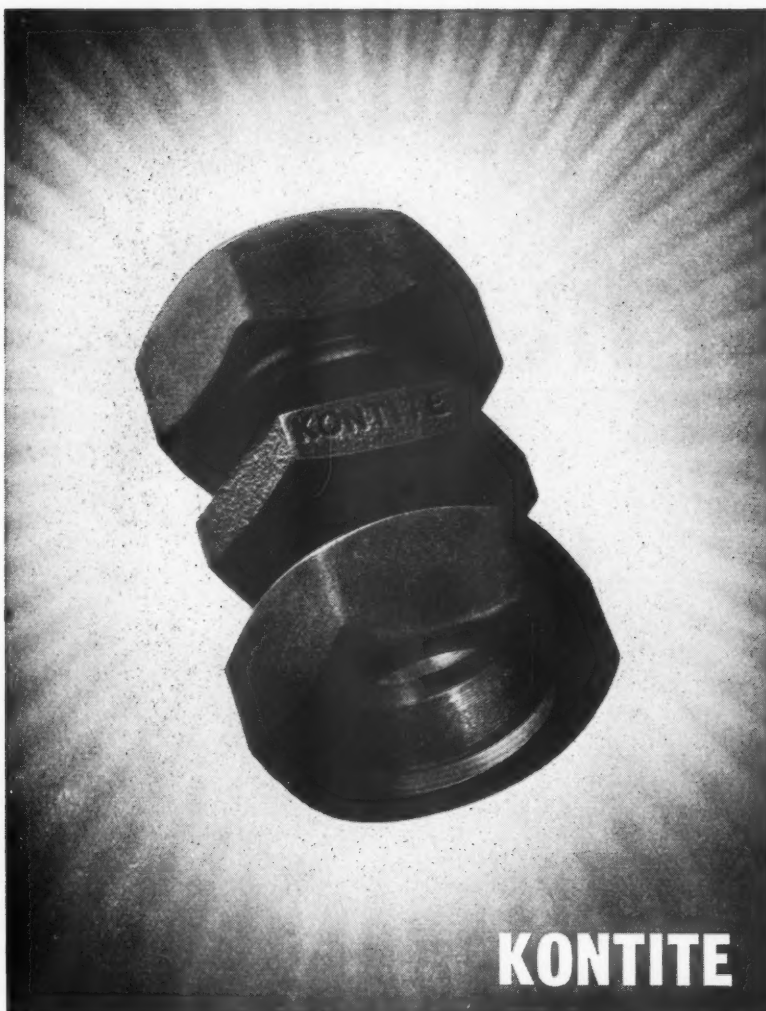
Wherever good looks, long life and low maintenance costs are important factors, consider the virtues of aluminium. And for specialised knowledge and practical help on specific problems, get in touch with our nearest sales office. We shall be glad to hear from you.

## Noral

NORTHERN ALUMINIUM CO. LTD.

Sales Offices: **BELFAST**: Donegall House, 7 Howard Street, Belfast 32805 • **BIRMINGHAM**: Devonshire House, Great Charles Street, 3, Central 7393 • **BRISTOL**: Pelouquin Chambers, 18 St. Augustine's Parade, 1, Bristol 20351 • **LEEDS**: 26/27 Park Row, 1, Leeds 33621 • **LONDON**: 50 Eastbourne Terrace, W2, Paddington 3281 • **LUTON**: 57 Bute Street, Luton 7364-5 • **MANCHESTER**: 23 Princess Street, 2, Central 9335 • **NEWCASTLE UPON TYNE**: Groat House, Collingwood Street, 1, Newcastle 20878 • **Castings & Forgings Sales Division**, Middlemore Road, Handsworth, Birmingham, Northern 3671.





## KONTITE THE PERFECT PIPE FITTING

Use Kontite compression fittings with copper tube and be sure of first-class plumbing.

Designed to make jointing easier, better and cheaper. They are available to suit all pipe sizes up to 6" bore.

**There are over 22,000 types and sizes of Kontite fittings, produced in cast gunmetal to resist corrosion.**

**Kay's delivery service is as outstanding as their fittings — the most dependable in the business.**

Fully illustrated catalogue of Kontite fittings will be supplied on request.



### FITTINGS FOR COPPER TUBE

**KAY & COMPANY (ENGINEERS) LTD**  
**BOLTON · LANCS · TEL: BOLTON 3041**  
LONDON OFFICE: 36 VICTORIA STREET · SW1  
TELEPHONE: ABBEY 2144



# INSULATION for UNDERFLOOR HEATING



## STILPHON 20

### LOAD RESISTANT INSULATING MAT

Stilphon 20 has been specially designed to the ideal specification for insulation of under floor heating and floating floor constructions. Stilphon 20 is prepared from resilient mineral wool (7 lb. density) with a covering of stout builder's paper ready to take a concrete screed.

*For further details with specifications for various floating floor construction, please send coupon.*



TRADE MARK

**STILLITE PRODUCTS LTD.**

15 Whitehall, London, S.W.1. Telephone: WHitehall 0922-7

231 St. Vincent St., Glasgow, C.2. Central 4292

To: Stillite Products Ltd., 15, Whitehall, London, S.W.1.

*Please send me details of Stilphon 20.*

**NAME** .....

**ADDRESS** .....

*Just attach this coupon to your letterhead.*

*R.I.B.A. Jnl.*

Corrugated 'Perspex' roof lights in a building erected for Messrs. Edmund Taylor (Engineers) Ltd., Appley Bridge, Wigan, Lancs, by E. W. Tyler & Co. Ltd., Cannon Lane, Tonbridge, Kent.



## Ideal lighting at low cost in this building —it has Corrugated 'Perspex' rooflights

MESSRS. EDMUND TAYLOR (ENGINEERS) LTD., makers of Taylor-made Laying Battery Cages and Poultry appliances, cut artificial lighting expenses in this store house. Corrugated 'Perspex' acrylic sheet roof lighting lets in all the light they need.

Corrugated 'Perspex' is inexpensive to install. It saves money on artificial lighting, and

lasts indefinitely. It is tough, yet light and easy to handle. It is unaffected by the severest weather and withstands the corrosive atmospheres of industrial and marine areas.

Corrugated 'Perspex' is available in a wide range of profiles to fit most corrugated roofing materials. If diffused daylight is desired, Opal Corrugated 'Perspex' is available.

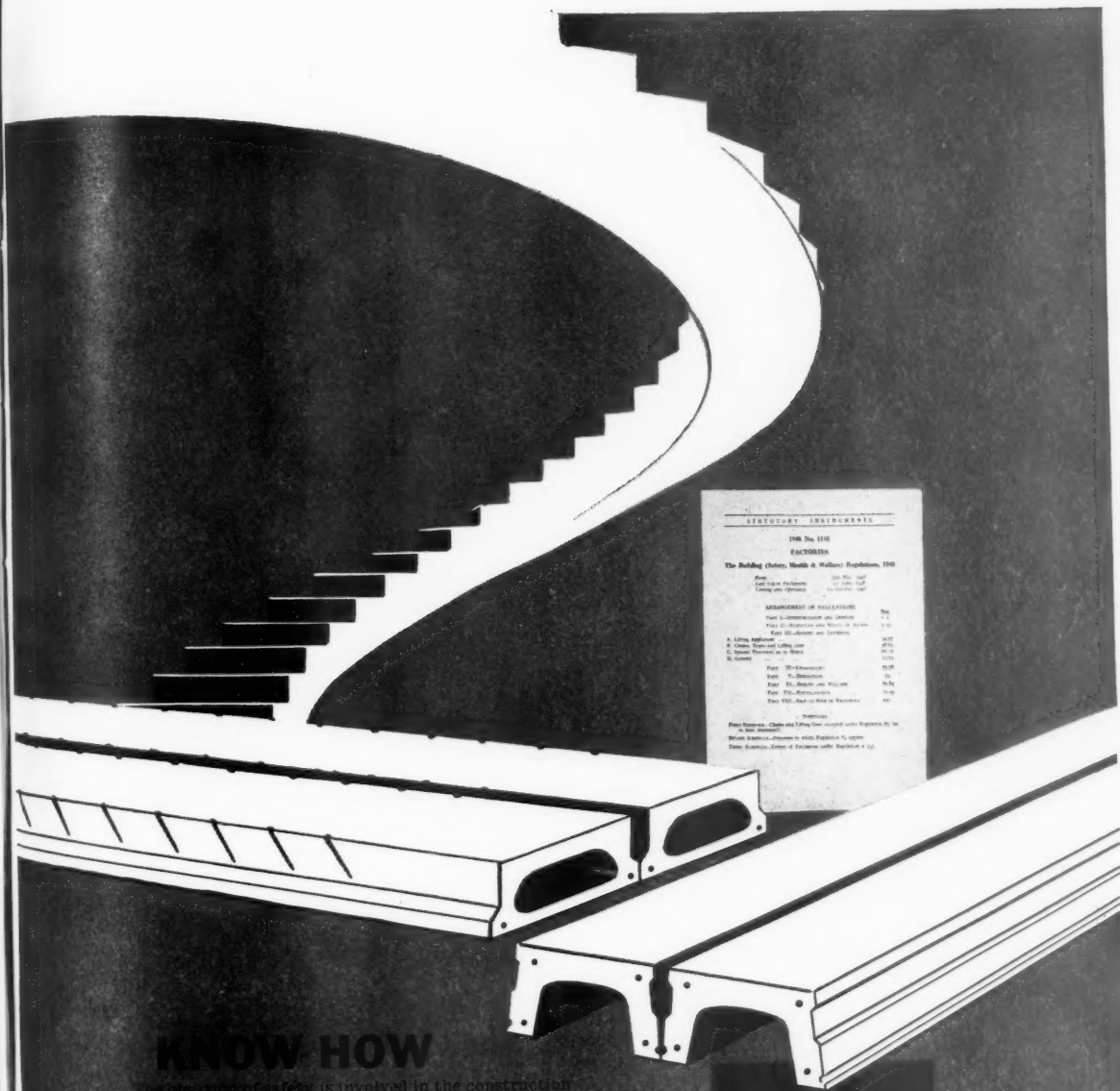
It's as clear as daylight—it must be  
**CORRUGATED 'PERSPEX'**

*'Perspex' is the registered trade mark for the acrylic sheet made by I.C.I.*

IMPERIAL CHEMICAL INDUSTRIES LIMITED • LONDON • S.W.1.

C.P.169





**SIEGWART PRECAST CONCRETE**

**1956 No. 1102**

**FACTORY**

**The Building (Safety, Health & Welfare) Regulations, 1960**

Part	Page	Page
Part 1 - General	1	1
Part 2 - Foundations and Foundations	2	2
Part 3 - Foundations and Foundations	3	3
Part 4 - Foundations and Foundations	4	4
Part 5 - Foundations and Foundations	5	5
Part 6 - Foundations and Foundations	6	6
Part 7 - Foundations and Foundations	7	7
Part 8 - Foundations and Foundations	8	8
Part 9 - Foundations and Foundations	9	9
Part 10 - Foundations and Foundations	10	10
Part 11 - Foundations and Foundations	11	11
Part 12 - Foundations and Foundations	12	12
Part 13 - Foundations and Foundations	13	13
Part 14 - Foundations and Foundations	14	14
Part 15 - Foundations and Foundations	15	15
Part 16 - Foundations and Foundations	16	16
Part 17 - Foundations and Foundations	17	17
Part 18 - Foundations and Foundations	18	18
Part 19 - Foundations and Foundations	19	19
Part 20 - Foundations and Foundations	20	20
Part 21 - Foundations and Foundations	21	21
Part 22 - Foundations and Foundations	22	22
Part 23 - Foundations and Foundations	23	23
Part 24 - Foundations and Foundations	24	24
Part 25 - Foundations and Foundations	25	25
Part 26 - Foundations and Foundations	26	26
Part 27 - Foundations and Foundations	27	27
Part 28 - Foundations and Foundations	28	28
Part 29 - Foundations and Foundations	29	29
Part 30 - Foundations and Foundations	30	30
Part 31 - Foundations and Foundations	31	31
Part 32 - Foundations and Foundations	32	32
Part 33 - Foundations and Foundations	33	33
Part 34 - Foundations and Foundations	34	34
Part 35 - Foundations and Foundations	35	35
Part 36 - Foundations and Foundations	36	36
Part 37 - Foundations and Foundations	37	37
Part 38 - Foundations and Foundations	38	38
Part 39 - Foundations and Foundations	39	39
Part 40 - Foundations and Foundations	40	40
Part 41 - Foundations and Foundations	41	41
Part 42 - Foundations and Foundations	42	42
Part 43 - Foundations and Foundations	43	43
Part 44 - Foundations and Foundations	44	44
Part 45 - Foundations and Foundations	45	45
Part 46 - Foundations and Foundations	46	46
Part 47 - Foundations and Foundations	47	47
Part 48 - Foundations and Foundations	48	48
Part 49 - Foundations and Foundations	49	49
Part 50 - Foundations and Foundations	50	50
Part 51 - Foundations and Foundations	51	51
Part 52 - Foundations and Foundations	52	52
Part 53 - Foundations and Foundations	53	53
Part 54 - Foundations and Foundations	54	54
Part 55 - Foundations and Foundations	55	55
Part 56 - Foundations and Foundations	56	56
Part 57 - Foundations and Foundations	57	57
Part 58 - Foundations and Foundations	58	58
Part 59 - Foundations and Foundations	59	59
Part 60 - Foundations and Foundations	60	60
Part 61 - Foundations and Foundations	61	61
Part 62 - Foundations and Foundations	62	62
Part 63 - Foundations and Foundations	63	63
Part 64 - Foundations and Foundations	64	64
Part 65 - Foundations and Foundations	65	65
Part 66 - Foundations and Foundations	66	66
Part 67 - Foundations and Foundations	67	67
Part 68 - Foundations and Foundations	68	68
Part 69 - Foundations and Foundations	69	69
Part 70 - Foundations and Foundations	70	70
Part 71 - Foundations and Foundations	71	71
Part 72 - Foundations and Foundations	72	72
Part 73 - Foundations and Foundations	73	73
Part 74 - Foundations and Foundations	74	74
Part 75 - Foundations and Foundations	75	75
Part 76 - Foundations and Foundations	76	76
Part 77 - Foundations and Foundations	77	77
Part 78 - Foundations and Foundations	78	78
Part 79 - Foundations and Foundations	79	79
Part 80 - Foundations and Foundations	80	80
Part 81 - Foundations and Foundations	81	81
Part 82 - Foundations and Foundations	82	82
Part 83 - Foundations and Foundations	83	83
Part 84 - Foundations and Foundations	84	84
Part 85 - Foundations and Foundations	85	85
Part 86 - Foundations and Foundations	86	86
Part 87 - Foundations and Foundations	87	87
Part 88 - Foundations and Foundations	88	88
Part 89 - Foundations and Foundations	89	89
Part 90 - Foundations and Foundations	90	90
Part 91 - Foundations and Foundations	91	91
Part 92 - Foundations and Foundations	92	92
Part 93 - Foundations and Foundations	93	93
Part 94 - Foundations and Foundations	94	94
Part 95 - Foundations and Foundations	95	95
Part 96 - Foundations and Foundations	96	96
Part 97 - Foundations and Foundations	97	97
Part 98 - Foundations and Foundations	98	98
Part 99 - Foundations and Foundations	99	99
Part 100 - Foundations and Foundations	100	100

## KNOW HOW

The question of safety is involved in the construction of **PRECAST FLOORS AND ROOFS** and it is wise to employ a specialist in this routine operation consulting him in the early stages of planning. The design, manufacture and erection of Precast Concrete Floors and Roofs is not a rule of thumb matter that can readily be done with the help of standard tables.

SIEGWART provide not only experienced designers but also a staff in the Works and on the Site who, from a long study and experience of the problems involved and the pitfalls to be avoided, can translate good design into sound construction.

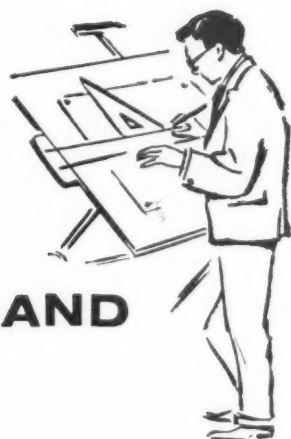
### SIEGWART PRECAST FLOORS AND ROOFS

Our Associate Company, S.P.C. Ltd. has been formed to give a complete service in concrete. It will be pleased to quote for the design and erection from foundation of all R.C. structures.

SIEGWART FLOOR CO. LTD., Gable House, Rickmansworth, Herts. Telephone Rickmansworth 2308. Berkeley House, Harley Road, Birmingham 16. Telephone Edgbaston 350. Carlton House, Blythwood Square, Glasgow, C.2. Telephone City 812.

# Plan with

# modernfold



AND

## USE ALL THE SPACE

When planning room partitions use Modernfold Expanding Walls and Doors. Economical, simple to install and contemporary in appearance. Modernfold are the ideal answer whether for the Board Room, Office Blocks, Schools, Halls, or the private home. There is a wide choice of colours in a superb heavy quality P.V.C. leathercloth, which gives Modernfold a most luxurious appearance.

No floor track of any nature is required. Modernfold are completely draughtproof. Where reduction of sound is a particular problem the special "Soundmaster" Modernfold is available. Details of scientific tests can be supplied.

Modernfold open and shut at the touch of a finger, are available as single doors, pairs of doors, fully floating or curved doors. Include Modernfold, the contemporary method of room division, in your plan.

*Taylor Woodrow Ltd., Canteen, Ruislip Road  
Southall. Architects: Elliott, Cox and Partners, F.R.I.B.A., F.R.I.C.S.,  
L.R.I.B.A., A.I.A.S.,  
A.R.I.B.A.*



### WALLFOLD by modernfold

In quantity flow production, this great new range of expanding walls and doors, through their wide range of standard sizes, makes them ideal for use in housing estates, etc. Covered in P.V.A. Leathercloth which can be painted with recommended emulsion paint.

modernfold

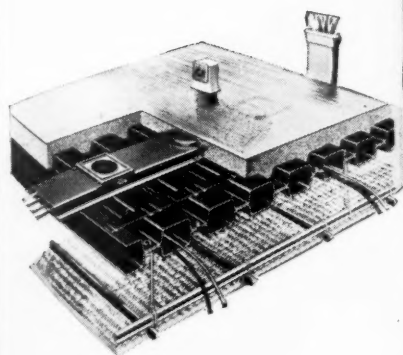
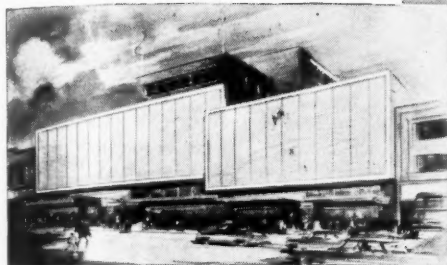
## EXPANDING WALLS AND DOORS

HOME FITTINGS (GREAT BRITAIN) LIMITED  
Dept. JR8, Victoria Works, Hill Top, West Bromwich, Staffs  
Telephone: Wednesbury 0761



# NEW STORE FOR BEALESONS

at **Bournemouth**



## Architects :

**Reynolds, Tomlins & Dexter.**

## Heating & Electrical Consultant:

**G. H. Buckle & Partners.**

## General Contractors :

**James Drewitt & Son Limited.**

## Steelwork Contractors :

**Redpath Brown & Co. Limited.**

Speed of construction was the client's prime requirement in the rebuilding of a large portion of the Bealesons Limited Store at Bournemouth. The whole of the first phase of the building had to be handed over completed in time to catch the Christmas trade. To this end Robertson Q-Floor was chosen as the load-bearing floor on each of the five storeys.

Q-Floor is a quickly erected steel sub-floor which serves as an immediate safe working platform for other trades. It provides at a cost little more than the floor slab itself a vast built in network of electric wiring ducts over the entire floor area.

The changing layout required in the store display is amply catered for, as an electrical supply can be provided quickly and conveniently at any point on the floor.

**ROBERTSON Q-FLOOR**—the only British floor with an integral under-floor duct system.

# ROBERTSON Q-FLOOR

## ROBERTSON THAIN LIMITED

ELLESMERE PORT • WIRRAL • CHESHIRE

Telephone: Ellesmere Port 3622-9

Telegrams: 'Robertroof'



## Sales Offices:

BELFAST • BIRMINGHAM  
CARDIFF • EXMOUTH • GLASGOW  
IPSWICH • LIVERPOOL • LONDON  
MANCHESTER • NEWCASTLE  
SHEFFIELD

Associated Companies or  
Agents in most countries  
throughout the world



## CASTROL HOUSE

Marylebone Road,  
London, N.W.1.

World Headquarters of the  
Wakefield Castrol Group.

A development of the  
Hammerson Group of Companies.

*Architects:*  
Gollins, Melvin, Ward & Partners  
in association with  
Sir Hugh Casson, Neville Conder  
& Partners.

*Consulting Engineers for Mechanical  
& Electrical Services:*  
Edward A. Pearce & Partners.

*Contractors:*  
Sir Robert McAlpine & Sons, Ltd.



At Castrol House...

- HEATING
- VENTILATION
- SPRINKLERS
- SANITATION

were entrusted to

**MATTHEW HALL & CO. LTD.**

THE

# MATTHEW HALL

GROUP OF COMPANIES

MATTHEW HALL HOUSE, DORSET SQUARE, LONDON, N.W.1

Glasgow  
Cape Town

Manchester  
Welkom

Bulawayo

Bristol  
Salisbury (Central Africa)

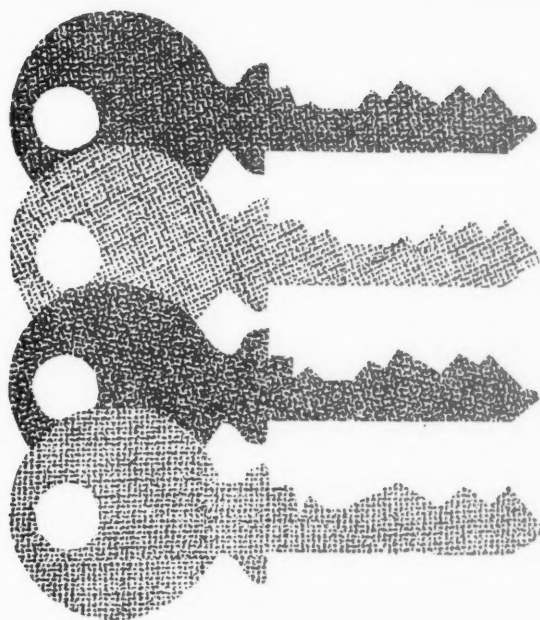
Johannesburg  
Ndola

Germiston  
West Indies

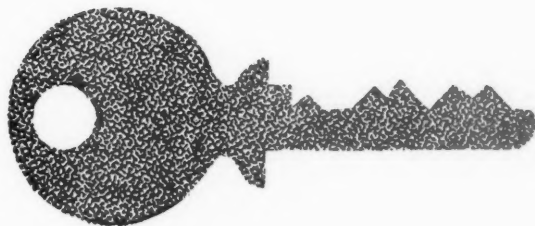
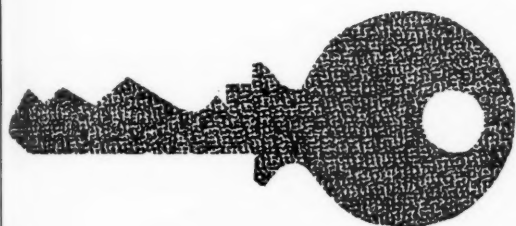
ESTD. 1848



MATTHEW HALL



for homes or hotels . . .



## PRESSURE PILING

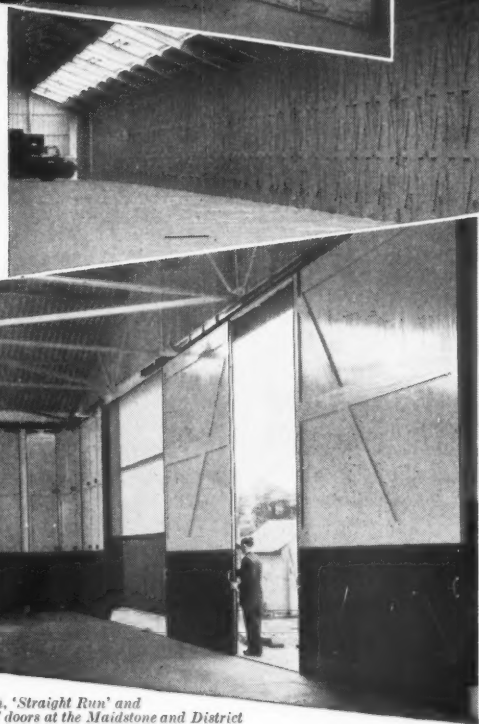
solves foundation problems

THE PRESSURE PILING CO. (PARENT) LTD  
637 Old Kent Road London SE15  
Telephone: NEW CROSS 0347/8/9

THE PRESSURE PILING CO. (NORTHERN) LTD  
Charnley Fold Lane, Bamber Bridge, Nr. Preston  
Telephone: PRESTON 85723

The original and largest Bored Piling specialists in the world

---



18 ft. high, 'Straight Run' and 'Tangent' doors at the Maidstone and District Motor Service Borough Green Depot.

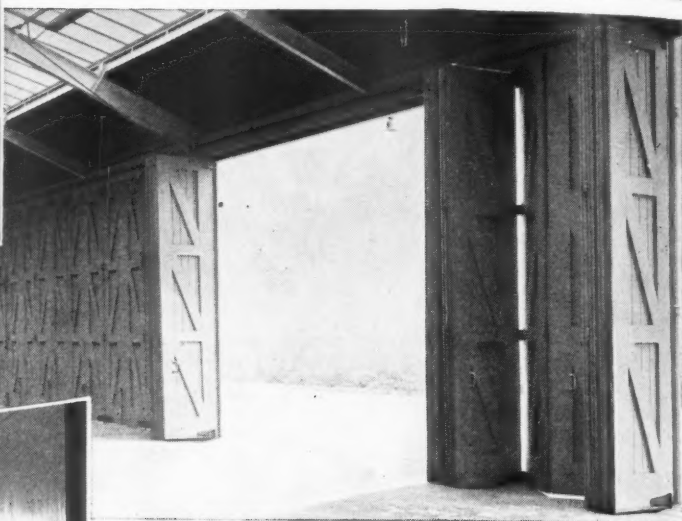
We urge discussion during the planning stage to determine the right gear for closing doorways in the most economical manner.  
Unrivalled Drawing Office Service offered without obligation.

## Famous 'TANGENT'

or DOORS SLIDING AND FOLDING and  
DOORS SLIDING ROUND THE CORNER  
up to 20ft. high and for any width of opening.

*Seen in successful operation the world over.*

*Despatch bays of William Jackson & Son Bakery, Stockton-on-Tees. Opening 84 ft. wide overall.*



## STRAIGHT-RUN

SINGLE-DOUBLE-TRIPLE  
lines of Tracks for all Industrial Doors in  
either wood or metal

TOP TUBULAR TRACKS (10 sizes) carry the  
weight from above.

'STERLING' BOTTOM ROLLERS (4 sizes) take  
the weight on the ground.

Qualified Technical Representatives in all areas readily call upon you  
without obligation.

Every room in every Architect's office should have a Henderson  
Catalogue 55. If not, write for a copy.

For  
40 Years

Henderson

SLIDING DOOR GEAR

STRAIGHT

ROUND CORNERS

FOLDING

OVERHEAD

FOR ANY DOOR, PARTITION OR WINDOW THAT SLIDES OR FOLDS

P. C. HENDERSON LIMITED, ROMFORD, ESSEX. Telephone: INGrebourne 41111. London calls dial IL4 then ask for 41111.

H137

# A brush-on waterproofing that contains rubber...

## TO PREVENT OR CURE DAMP WALLS

Synthaprufe makes a highly efficient vertical damp course both inside and out, and is an excellent treatment when damp is already present.



## ELASTIC, ADHESIVE, IT MAKES AN IDEAL JOINTING

SYNTHAPRUF is an all-purpose waterproofing compound applied cold by brushing. Its rubber content makes it strongly adhesive, and it sets quickly to form a strong, elastic, moisture-proof film.

Almost any surface, whether it be wood, brick, metal, concrete or plastic, will take Synthaprufe. It is an excellent key for plaster on difficult surfaces such as painted and glazed bricks. The use of Synthaprufe obviates the noise and expense of hacking.

When used as a sandwich in concrete sub-floors Synthaprufe acts as a horizontal damp course, effectively preventing moisture penetration.

Synthaprufe, a by-product of British coal, is obtainable in drums and cans.

## TO WATERPROOF CONCRETE SUB-FLOORS

Synthaprufe is the ideal sandwich layer in concrete sub-floors. It is also the ideal fixative for linoleum and wood-blocks.



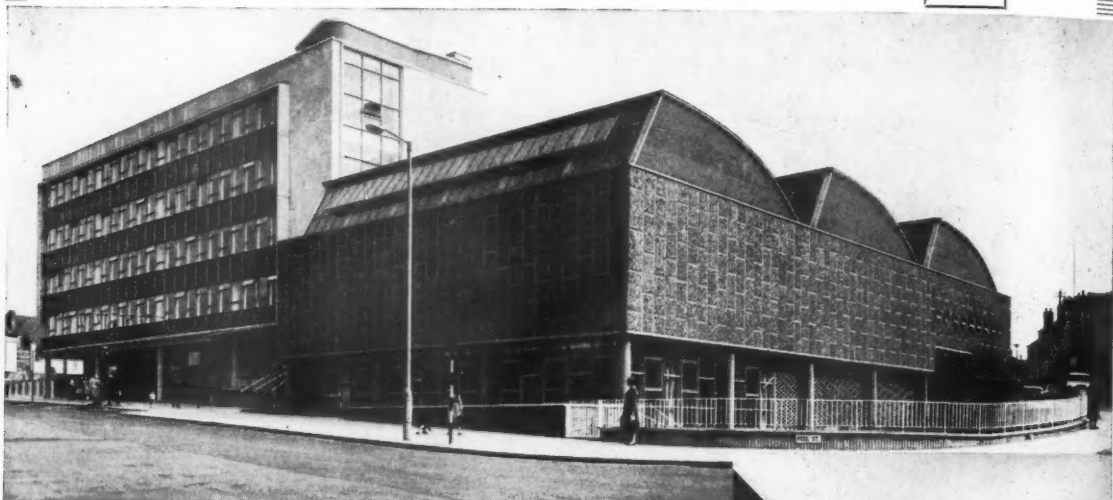
# Synthaprufe<sup>\*</sup>

*"Synthaprufe"  
is a registered  
Trade Mark*

MANUFACTURED BY THE **National Coal Board**

BY-PRODUCTS, NATIONAL PROVINCIAL BANK BUILDINGS, DOCKS, CARDIFF





### WOLVERHAMPTON MARKET

Wolverhampton's new market reflects the prosperity of Britain in its careful attention to design with the housewife in mind. Extensive use of reinforced concrete allows wide floor spaces (without supporting pillars) and connecting bridges between multi-storey office blocks.

There are spacious halls, imaginative restaurants and shops, a sunken garden and an underground park for nearly 100 cars. North light barrel vault roofs shield the clean and unrestricted interior from direct sunlight.

Extensive use of 'Tentor' reinforcement (Regd.), supplied by G.K.N. Reinforcements Ltd., meant a saving of 15% compared with conventional reinforcements—an initial and accumulative economy reproducible in all modern building.

*The Wolverhampton Market Scheme was designed under the direction of the then Borough Engineer, Mr. W. M. Law, M.B.E., M.I.C.E., M.I.Mun.E., and the Architects responsible were:*

*Deputy Borough Architect: A. G. E. CHAPMAN, A.R.I.B.A., A.M.T.P.I. Chief Assistant Architect: N. C. DOWELL, A.R.I.B.A.*

*Architect in Charge: J. A. RICHARDS, Dip. Arch., A.R.I.B.A. Reinforced Concrete Designers: G.K.N. REINFORCEMENTS LTD.*

*Contractors: WILLIAM MOSS & SONS LTD. LOUGHBOROUGH*



If you want to put steel into concrete  
get in touch with

# G.K.N. Reinforcements Ltd.

FORMERLY TWISTEEL REINFORCEMENT LTD.

ALMA STREET, SMETHWICK 40, STAFFS. (SMETHWICK 1991)

MIDDLESBROUGH: (Middlesbrough 3843)

LONDON: (Kensington 6311)

GLASGOW: (Bell 2444) MANCHESTER: (Ardwick 1691)



BRISTOL: (Bristol 21555) LEEDS: (Leeds 27311)

CARDIFF: (Cardiff 45220) LEICESTER: (Leicester 25114)

Works: SMETHWICK, WIGAN & GLASGOW



**MODOLITE TIMBER  
CURTAIN WALLING  
AND WINDOWS**



**The largest section of  
Timber Curtain Walling  
in Gt. Britain**

**"REGENT COURT"**

*Flats at Gateshead*

*Chief Architect:* L. Berry, Esq., A.R.I.B.A., in  
succession to the late M. Yendall, Esq.,  
A.R.I.B.A.

*Borough Engineer:* G. F. Winters, Esq., B.E.,  
A.M.I.C.E.

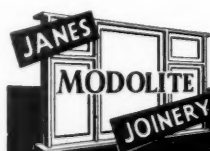
*General Contractor:* Geo. Wimpey & Co. Ltd.,  
Hammersmith

*Available on request:*

**MODOLITE** Standard window catalogue

**MODOLITE** Economy range window leaflet

**MODOLITE** Curtain wall brochure



**H.C. JANES LIMITED** • Barton • Bedfordshire

Tel. HEXTON 364/5

# SUPERFOLD

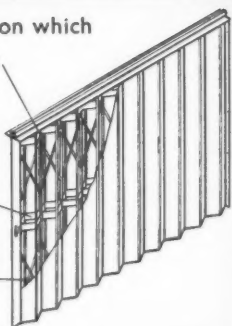
## PARTITIONS FOR LONG LIFE

You can specify Superfold in the knowledge that in-built quality based on sound design will give lasting trouble-free service.

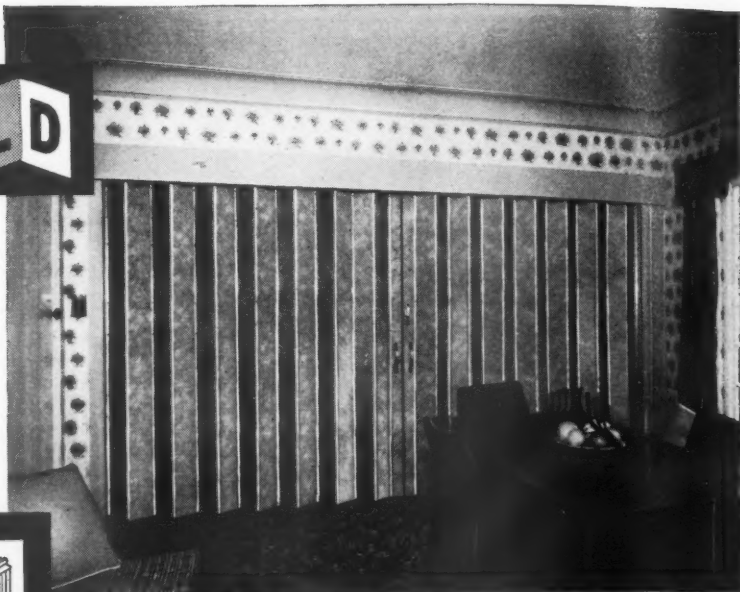
A.A. pickets on which door is built.

16<sup>s</sup> G.M.S. hinge plates.

Leathercloth both sides.

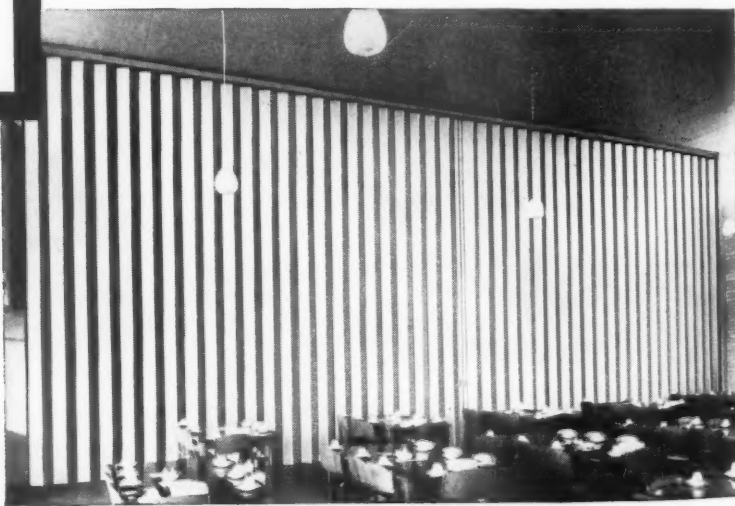


For schools, public and institutional buildings and for the discerning householder, Superfold provides all the answers. For full description and illustrations see our latest colour folder RB.349—please write for a copy.



**CHOSEN BY ARCHITECTS—**

**DESIGNED BY ENGINEERS**

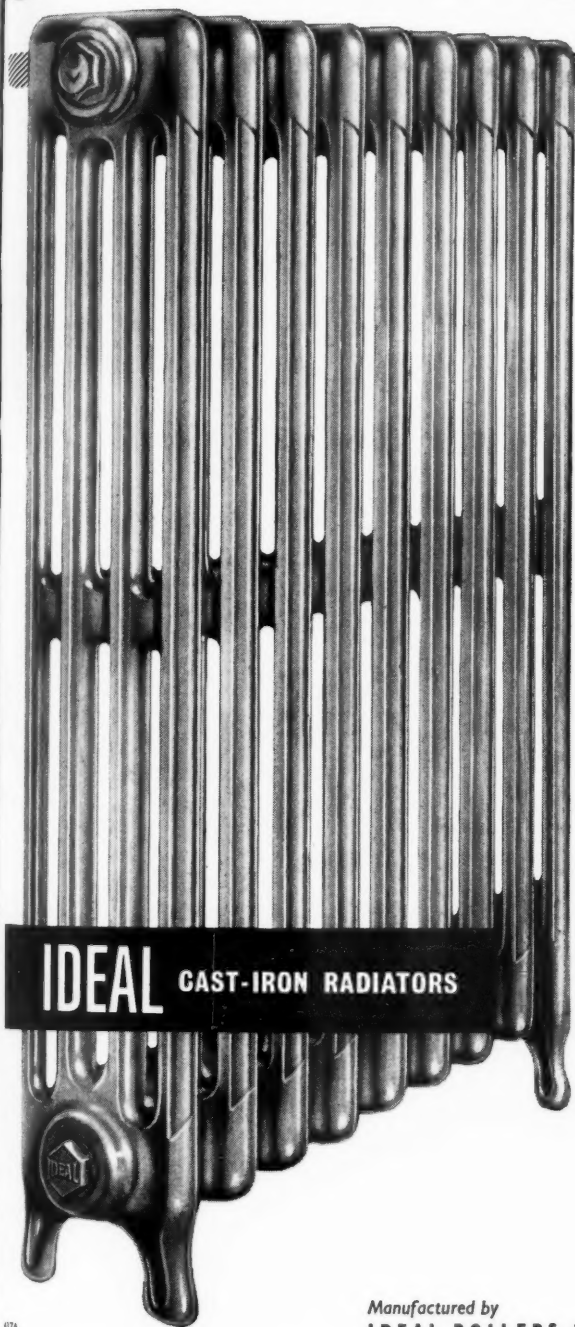


**BOLTON GATE CO. LTD.**  
**BOLTON • LANCS.**

Branches at: London, Birmingham, Glasgow and towns throughout the country.

BG 349

# Cast-iron for long life!



**IDEAL** CAST-IRON RADIATORS

Because they resist corrosion, Ideal cast-iron radiators have an exceptionally long life. This is further ensured by their strength and accuracy of construction. Then there is the advantage of high heat transmission. And when adaptability is considered, Ideal column radiators offer the advantages of sectional construction not only at the planning stage but at all times. After installation it is quite simple to 'make and break' the radiators to add or remove sections.

*Pictured is the Ideal No. 4 Neo-Classic Radiator. The Neo-Classic is available with two, four or six columns per section and in four heights.*

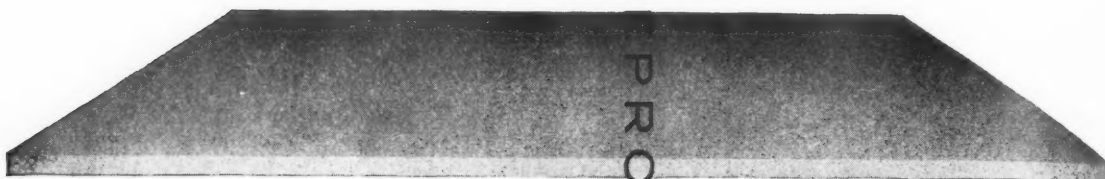


Manufactured by  
**IDEAL BOILERS & RADIATORS LIMITED • IDEAL WORKS • HULL**

# Pyrestos is unique

THE ONLY  
WOOD FIBRE  
INSULATION  
BOARD

FLAME PROOF



Factory under erection, Colnbrook,  
Contractors: Breezecraft Ltd. of Staines.



Meeanee & Hyderabad Barracks, Colchester.  
Main Contractors: Farrans Ltd., Upper Brook Street,  
Colchester.

## Board Processors Ltd

Leyborne Wharf, Horton Bridge Road, West Drayton, Middlesex.  
Telephone: (WE 3) 4021 (7 lines)

THROUGHOUT  
ITS  
THICKNESS.

PERMANENT FIRE  
PROTECTION PLUS  
INSULATION.

The triple action of  
PYRESTOS-FLAME-  
PROOF, HIGH THERMAL  
and ACOUSTIC VALUE-  
makes the ideal board for  
ceilings and wall cladding,  
partitions, etc.-where  
thermal and sound  
insulation must combine  
with safeguard against fire  
risk. Decay and termite  
proof.

**NOW AVAILABLE**  
with a high grade light  
reflecting surface-  
PYRESTOS WHITE.  
Thickness: 9/16" 11/16" and  
13/16" up to 12' x 4'

Immediately available from  
stockists throughout the  
country.

Complies fully with the  
requirements of the  
THERMAL INSULATION  
(Industrial Buildings) Act,  
1957.

Further details, samples and prices  
etc. available on request.



Pyrestos is a registered trade mark



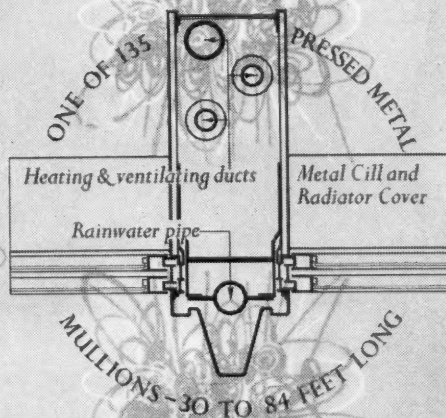
# SANDERSON

NEW BUILDING, BERNERS STREET, LONDON, W.1

*Slater and Uren, F.F.R.I.B.A., Architects*

## HOPE'S WINDOW WALL

*with aluminium double hung sliding sash*



### HENRY HOPE & SONS LTD

*Smethwick, Birmingham & 17 Berners St., London, W.1*

BACKGROUND BASED ON SANDERSON FABRIC DESIGN H346/1

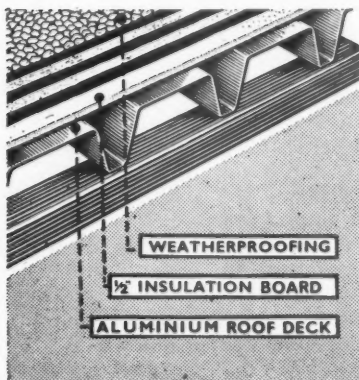
**this  
was  
a  
problem**

**until  
BRIGGS  
found  
the  
answer\***

\*

The detail agreed for the straight runs of expansion joint was a fairly standard design of timber curb with a sliding aluminium capping angle dressed with roofing felt. A special capping section, to allow four way movement at the central junction, was designed and supplied by the Briggs Technical Design Service. The finished detail provided a neat effective joint, allowing for expansion and contraction, without any loss of waterproofing efficiency.

*The resources, technical knowledge and experience of the Briggs Organisation are at the disposal of every Architect and Engineer. Consult our nearest area office for further details of Briggs Technical Design Service.*

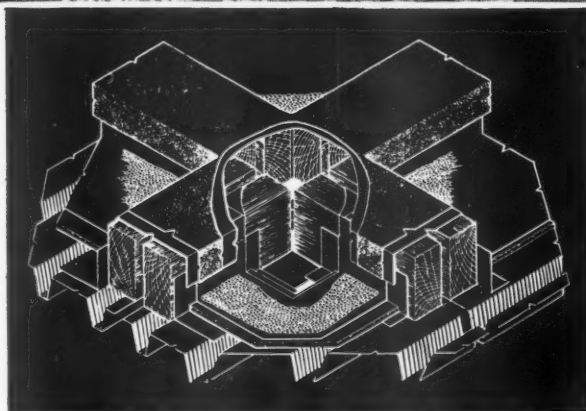


This detail illustrates one of the many problems which arise when provision for expansion in the roof is necessary.

In this case the "Bitumetal" roof structure had to be designed to allow expansion movement longitudinally as well as laterally, and the main problem was to design a watertight detail at the mid point junction of the expansion lines.

R. WARNER & CO. LTD., EASTLEIGH, HANTS.

Architects: Edmund D. Mills & Partners



**BRIGGS**

*the people to see  
about roofing*

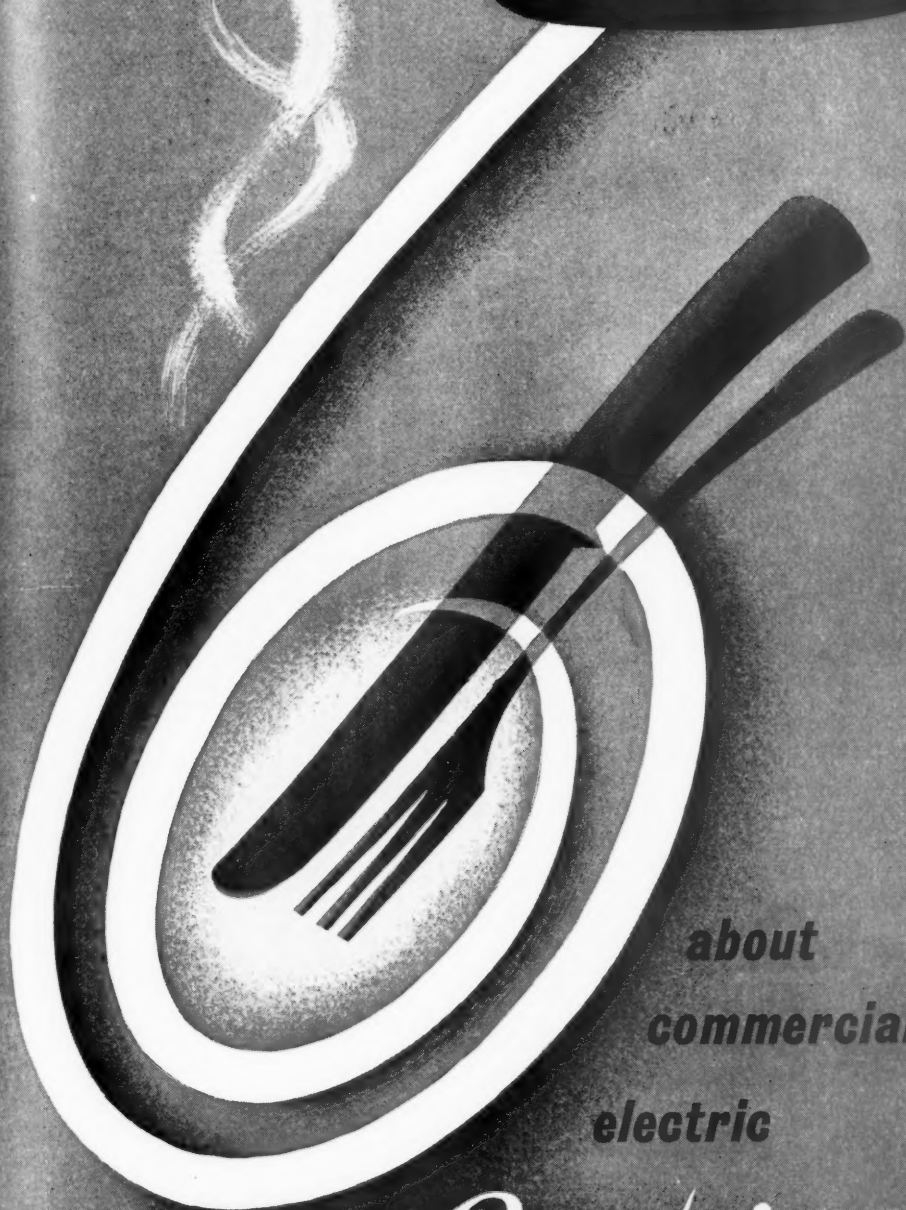
**WILLIAM BRIGGS & SONS LIMITED**  
VAUXHALL GROVE, LONDON, S.W.8 REGD. OFFICE: DUNDEE

AREA OFFICES: ABERDEEN • BELFAST • BRADFORD • BRISTOL • CARDIFF • DUBLIN  
EDINBURGH • GLASGOW • LEICESTER • LIVERPOOL • NEWCASTLE • NORWICH

HUYENHERRS

*consult*

**G.E.C.**



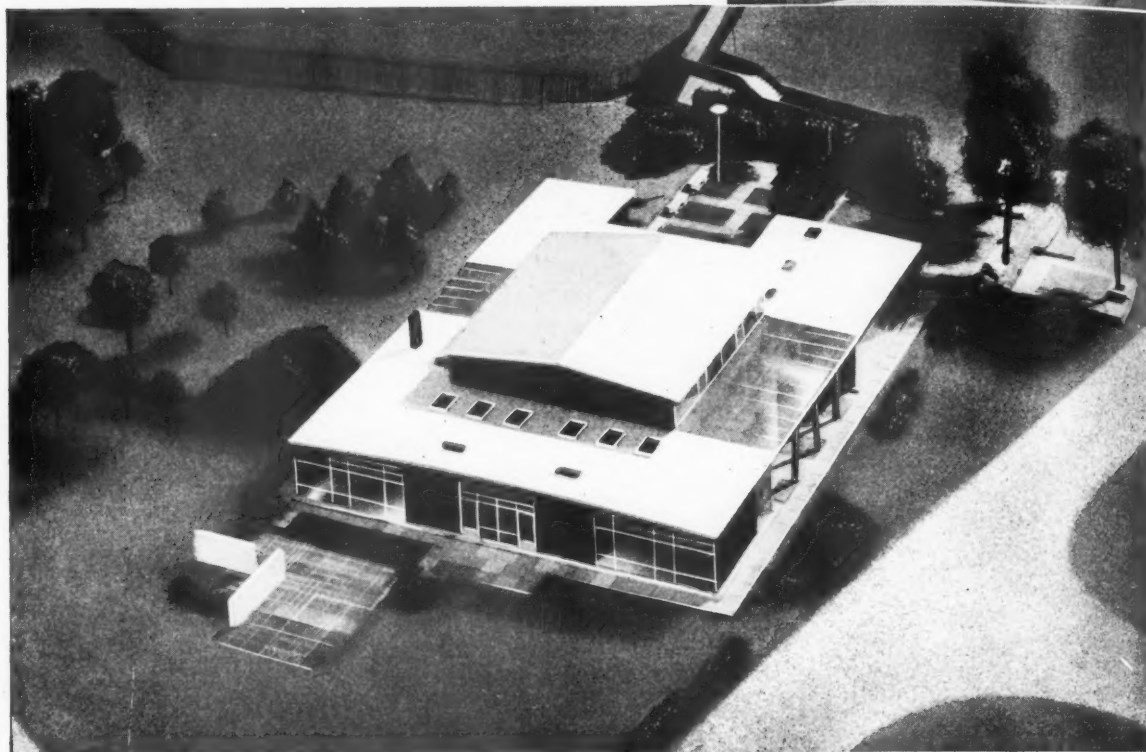
*about  
commercial  
electric*

*Cooking*

THE GENERAL ELECTRIC CO. LTD. MAGNET HOUSE KINGSWAY LONDON WC2



# BROCKHOUSE



Light gauge prefabricated structural steelwork for use in constructing single and multi-storey office blocks, schools, hospitals, etc., planned on the 40" module. This steel frame is part of the main CLASP construction which is being used for the United Kingdom Exhibit at the 1960 Triennale Di Milano.

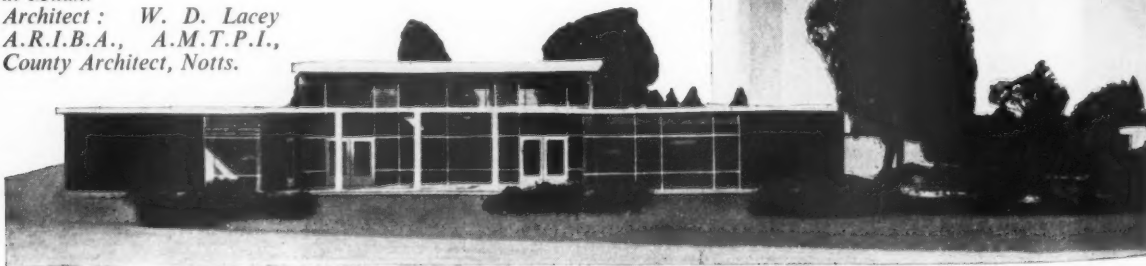
## BROCKHOUSE STEEL STRUCTURES LTD.

Victoria Works, West Bromwich, Staffs.

'Phone: Wednesbury 0243

*Our illustrations show the school building to be erected at Milan.*

Architect : W. D. Lacey  
A.R.I.B.A., A.M.T.P.I.,  
County Architect, Notts.





# CON- TIN- UOUS LIFT THE PAT- ERNOSTER

## the Paternoster or continuous lift

*offers unique advantages*

A paternoster is a series of lift cars travelling continuously on endless chains. It offers these unique advantages:—

Continuous, simultaneous, two-way operation  
High handling capacity, 470 to 700 persons per hour

Long life—low running and maintenance costs  
—freedom from breakdown

No attendants required

Always 'at the ready'

It has many others—but why not write for Publication 1005A? It contains much useful information.

### J & E HALL LTD

Lift, Escalator & Refrigeration Engineers.

DARTFORD - KENT - Dartford 23456

London Office: 10 St. Swithins Lane, E.C.4.

Tel: MANsion House 9811

A MEMBER OF THE HALL-THERMOTANK GROUP

AP 302

NOTTINGHAM CO-OPERATIVE SOCIETY

**choose Ceramic Tiles**



*Architect: W. V. Betts & Son, A/R.I.B.A.  
41 Bridgford Road, West Bridgford, Nottingham.*

*Tiling by: Thos. Stephens (NOTTM) Ltd.*

... and public opinion endorses with enthusiasm the Architect's choice  
of this PERFECT surface material — unrivalled for  
lasting beauty, for easy hygiene, and for luxurious economy,  
where the first cost is the last! Ceramic Tiles enhance superbly,  
the spacious, modern design of this magnificent  
Self-Service Store, in Farnborough Road.

Visit the Council's display of ceramic tiles at the Building Centre, Store St., Tottenham Court Rd., W.C.1.

**British**

**Ceramic**

**TILES**

*British Ceramic Tile Council • Federation House • Stoke-on-Trent*

Newly d  
magneti  
the first  
world—  
outline  
all light  
operatin  
Western  
Edinbur  
almost o  
theatres  
the mos  
to assist  
eminent  
his staff.

Each the  
for gene  
68 adjus  
projecto  
designed  
G.E.C.,  
silvered  
filament

The new  
magneti  
is design  
and safe  
Briefly,  
magneti  
behind a  
which is  
of the co  
lights, a

The light  
and easi  
operatio  
moving  
the pane  
groups  
ponding  
the plat  
are in u  
providin  
at the fe  
table. A  
mainten  
replacen  
from ou

Britain'  
designer  
this inst  
outstand  
achieve

THE GE

RIBA J

*this is the story ..*

Newly developed G.E.C. magnetic switch controllers, the first of their kind in the world—shown here in an outline drawing—control all lighting in the two new operating theatres of the Western General Hospital in Edinburgh. Of unusual, almost ovoid shape, these theatres are equipped with the most modern apparatus to assist the work of the eminent brain surgeon and his staff.

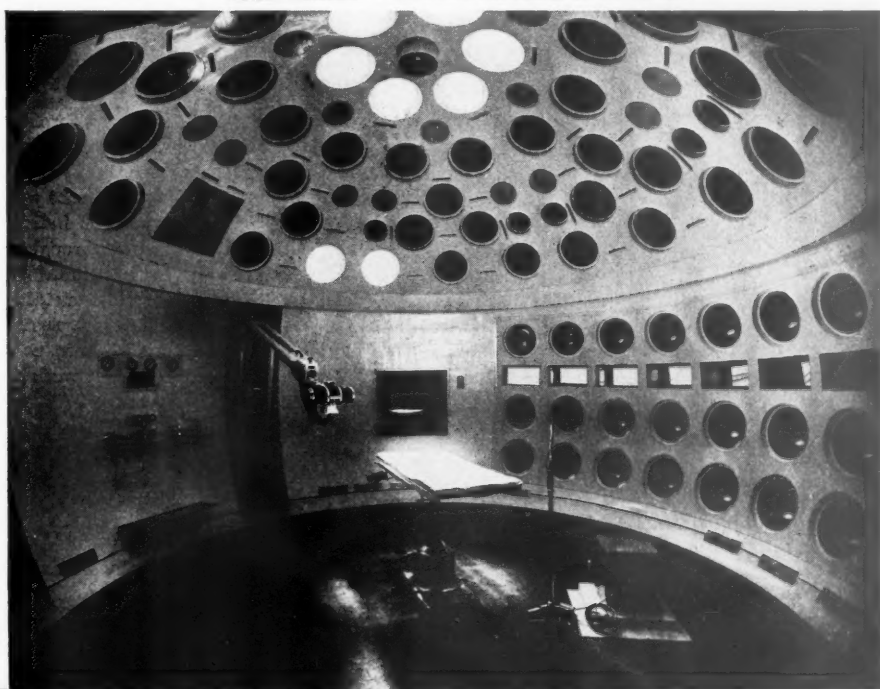
Each theatre has 18 lights for general illumination and 68 adjustable operation projector lights specially designed and made by the G.E.C., using special silvered Osram 75W small filament lamps.

The new and patented magnetic switch controller is designed for simplicity and safety in operation. Briefly, it consists of magnetic switches located behind a metal panel on which is outlined the shape of the ceiling and wall lights, as shown.

The lights can be quickly and easily directed during operations by simply moving metal plates across the panel which switch on groups of lights corresponding to the pattern of the plates. Usually 12 lights are in use at a time providing over 2,000 lm/ft<sup>2</sup> at the focal point on the table. All electrical maintenance and lamp replacement is effected from outside the theatre.

Britain's leading lighting designers are proud to add this installation to their outstanding record of achievements.

of a  
new light  
in  
Edinburgh's  
surgical  
neurology  
theatre



**G.E.C.**  
LIGHTING DIVISION

THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON. WC2



# MAPLES



your  
designs deserve  
**MAPLES**  
craftsmanship

MAPLES, the largest furnishing house in the world, offer to Architects the comprehensive MAPLE-MARTYN Service which embraces every aspect of constructional, decorative and furnishing contract work.

The illustrations indicate only two of the many outstanding projects throughout the world carried out by this renowned organisation.

In architectural metalwork and in carving, whether of wood, stone or fibrous plaster, MAPLE-MARTYN craftsmen are supreme. For all these, as well as for furniture and decoration, only the finest work can match your design.

**MAPLE MARTYN**

The MAPLE-MARTYN service is also available through the contract department of ROBSONS—Newcastle upon Tyne and RAY & MILES—Liverpool. Representatives are also in attendance at MARK ROWE LTD.—Exeter, SHEPHERD & HEDGER (MAPLE) LTD.—Southampton and Salisbury, FRAZER (MALLE) LTD.—Ipswich and at MAPLE & CO. LTD.—Bournemouth, Bristol, Birmingham.

CONTRACT DEPARTMENT :

**MAPLE & CO. LTD.**

TOTTENHAM COURT ROAD • LONDON • W1

*in association with its subsidiary  
H. H. Martyn & Co. Ltd., Cheltenham*



Architects: Victor Heal & Partners

Contractors: Holland & Hannen and Cubitts Ltd.  
(by whose courtesy this photograph has been made available)



# PAROPA

## chosen for new Bank of England Building

PAROPA roofing was specified for this important building. In all, 4,000 sq. yds. were laid, covering the majority of the roofs, areas and balconies—with the exception of the crescent-shaped roof in the foreground and a small section of roof at the rear.

This interesting view of the new building (photographed from the Whispering Gallery at St. Paul's Cathedral) also shows the Sun Life Insurance Offices in Cheapside and the Bank of London and South America, both of which are roofed with PAROPA.

PAROPA ROOFING supplied and laid only by:

### FRAZZI LIMITED

SPECIALISTS IN ROOF AND FLOOR CONSTRUCTION

LENNOX HOUSE, NORFOLK STREET, STRAND, W.C.2.

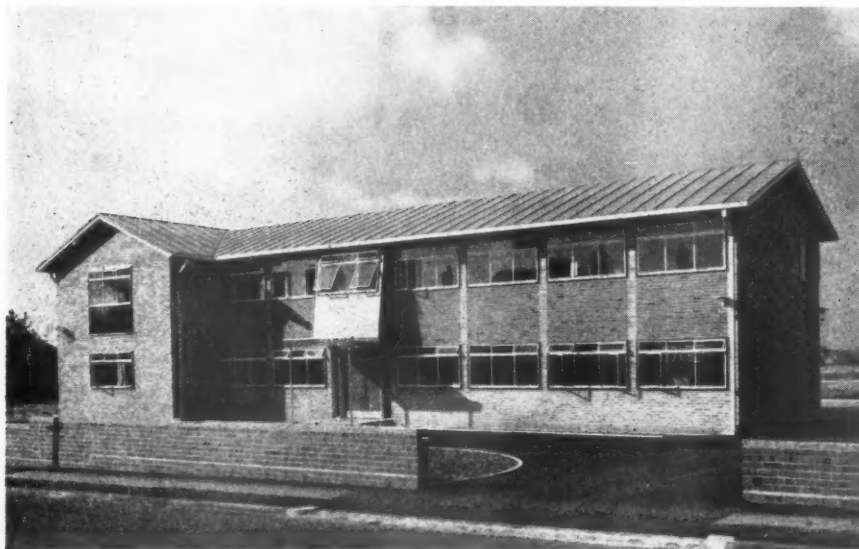
Telephone: TEMple Bar 5371

DUTTON ROAD, SHEFFIELD, 6. Telephone: Sheffield 345241

Associate Company: Paropa (Scotland) Ltd., 10 Claremont Terrace, Glasgow, C.3.

Agents: Robert Kirk Ltd., Exchange St., Belfast. Murphy Bros., 3 Castlewood Avenue, Dublin.

# FOR HOSPITALS AND SIMILAR BUILDINGS— BRODERICK INSULATED COPPER ROOFING ON TRUSSED RAFTERS IS IDEAL



**SOUTHAMPTON GENERAL HOSPITAL**  
New Group Offices for South-West Metropolitan Regional Hospital Board.

**Architects:**  
GUTTERIDGE & GUTTERIDGE

**Contractors:**  
MULLEN & LUMSDEN LTD.

**BRODERICK INSULATED COPPER ROOFING** at 22½ deg. pitch on trussed rafter roof framing. ★

## THREE GOOD REASONS—

1. The **LONG LIFE** of copper roofing with freedom from maintenance needs no emphasis.

2. The factory-covered insulating roof panels **REDUCE HEATING COSTS**.

3. Our trussed rafters at 2 ft. centres carry all roof and ceiling loads economically to outer walls permitting **FREE PLANNING**, with subsequent **RE-PLANNING** of floor space, if desired, without affecting the structure.

★ Roofing panels 2 ft. wide and up to 14 ft. long are faced at our factory with copper by our patent system, with projecting flanges at sides and ends for site jointing, and supported on prefabricated trussed rafters.

We design, supply and erect complete 'EVERYTHING ABOVE THE WALL PLATE' and will be pleased to submit a scheme and estimate for any suitable job in any part of the country.

Design, workmanship and materials are **GUARANTEED FOR TWENTY YEARS**.

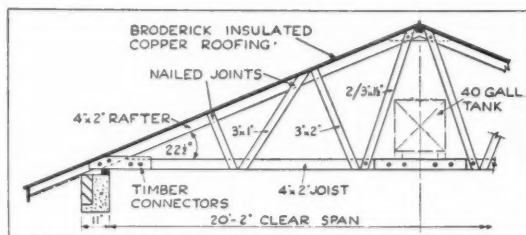


**THE RADCLIFFE INFIRMARY, OXFORD**

**Architects:** J. F. WATKINS & PTRS. and W. H. WATKINS, GRAY & PTRS.

**Contractors:** BENFIELD & LOXLEY LTD.

24,000 sq. ft. of **BRODERICK INSULATED COPPER ROOFING** at 15 deg. pitch on fire-proofed trussed rafters up to 40 ft. clear span.



★ **SOUTHAMPTON**  
Detail of prefabricated trussed rafters at 2 ft. centres supporting water tanks.

ILLUSTRATED FOLDER FREE ON REQUEST

**BRODERICK INSULATED STRUCTURES LTD.**

Hermitage Road, Woking, Surrey

Telephone: Brookwood 2266

# The Journal of the Royal Institute of British Architects

66 Portland Place London W1 Telephone Langham 5533



August 1960  
Third Series Volume 67 No. 10  
Price 3s 6d

## A New Kind of Conference

In several ways the Manchester Architects' Conference was a great success. Its subject, 'Rebuilding Our Cities', could hardly have been more topical or important. The papers contributed to it, together with the President's courageous speech, made a far bigger impact on the press and on the public than any previous Conference has done. More than any other event in recent years it has pushed the whole question of rebuilding the cities to the forefront. The Conference had a sense of urgency, and demonstrated that architects are thinking constructively about the technical, legal and financial problems involved.

But many of those who attended the Conference must have come away with some sense of disappointment. Many of those with the greatest knowledge and experience of the subject were not there – the teachers of architecture and town planning, the men or women one or two steps lower down the ladder than the Borough or County Architect, the younger members of the profession in private practices or public offices. Most of the leading members of the profession, and even of the RIBA Council, do not come to these conferences, and without them the conference cannot reach its full stature. The time for discussion was manifestly insufficient. The Study Group met for long enough to show that there were many members with a contribution to make, but not for long enough to enable them to make it – the Garden Party bus was waiting.

The fact is that Manchester was the last conference of its kind. What began as primarily a social gathering has been turned into a serious conference, but only in part. Today it is really neither one thing nor the other, and it is not possible to make it a better conference without completely changing its character. There can be little doubt that, in the future, the Conference must be planned first and foremost for serious discussion of the important strategic questions facing the profession, and particularly of those questions in which a wider public is directly interested. This has already been recognised in principle. Next year the International Union of Architects' Congress in London takes the place of our Conference, and it is certain that the next Conference at Coventry in 1962 will be planned on very different lines. It will be held in July, which makes it possible for the academic side of the profession to be represented, and for the Conference to become the forum at which advances in research and development are published. Both mornings and afternoons will be available for discussion. It will meet for three days instead of two. Within this framework many other innovations become possible. There could be more than one Conference subject, and several separate discussion groups. It could discuss both technical and professional questions, and many other possibilities could be considered.

In the next year the Conference Committee will re-examine both the business and the social side of the Conference, so that the field is now wide open for all those who have constructive suggestions or criticism to offer. The annual Architects' Conference can become a major event in the calendar not only of the profession, but of the nation.

# RIBA Topics

## RIBA Officers 1960-61

At their meeting on 5 July, the Council appointed the following honorary officers for the Session 1960 to 1961.

Mr Herbert Jackson [F], as Chairman of the Allied Societies' Conference, automatically becomes a Vice-President under the provisions of Bye-law 28(1)(b)(i).

The other Vice-Presidents appointed were Sir Hugh Casson [F] and Mr Frederick Gibberd [F], and Mr Hugh Wilson [A] as soon as the necessary formalities are completed for him to become a Fellow. This last appointment is to be ratified at the October meeting of the Council.

Mr Donald Gibson [F] was appointed Honorary Secretary and Mr Hubert Bennett [F] was reappointed Honorary Treasurer.

## Hospitals Week: MoH Exhibition

The 'Hospital Design and Building' Exhibition, designed for the Ministry of Health by the Central Office of Information, was formally opened on 7 July by the Minister of Health, Mr Derek Walker-Smith, Q.C.

After being introduced by the President, Sir William Holford, the Minister said:

We are engaged in a considerable expansion of our hospital building programme which you can see taking place both in the erection of new hospitals and the modernisation and extension of existing ones. It is evident both in money and projects.

It is only five or six years ago since we were able to afford as much as £10m in a single year out of National resources. Last year it was £21m. This year it is £25½m. Next year it will be £31m – and I may add I am not expecting any change in this figure. There are now more than 180 major schemes at various stages of planning or building.

These include 34 new hospitals of which eight are partly completed, nine are started and 17 are at various stages of planning. All in all we have a substantial, forward-looking programme.

And what of the design and character of the hospitals themselves? They must be functional, economic and aesthetically attractive. The Minister then gave a warning that we were not building for posterity—hospitals were not to be designed to have the permanence of cathedrals.

In effect, he said, hospital building and design must be flexible so as to keep pace with the development of medicine and science in this fast-moving age in which we live, with all its promise and its problems, its hazards and its hopes.

In all this we at the Ministry of Health are doing all we can to help. We have expanded our Design Unit, and increased the number of studies in active preparation. We are undertaking a number of major schemes for demonstration purposes – the first a consultative Out-Patients Department at Walton Hospital, Liverpool, and the second a hospital kitchen at Kingston-upon-Thames. We have enlisted the co-operation of the Building Research Station on a number of problems, covering large esoteric matters as heating, engineering services and the like. We are devising and applying a variety of new techniques in addition to our general technical guidance. These include the setting up of cost targets and a development of cost planning generally. We are preparing a series of Building Notes of particular hospital departments with diagrammatical sketches.

These new developments are all part of a wider plan to give those concerned in hospital design more guidance at the outset in the hope of simplifying and streamlining the hospital procedures.

Last, but by no means least this Exhibition is designed to stimulate interest in the hospital among architects throughout



The President, RIBA, being offered a pinch of snuff by Lord Craigton, Minister of State, Scottish Office, who opened the Hospitals Course at the RIBA on 11 July



The Minister of Health opening the exhibition on 'Hospital Design and Building' on 7 July

the country. It has, therefore, been designed as a touring Exhibition; and will, following its showing here in London be on view at eight regional centres in England and Wales and then go on to Scotland. For this reason its size is necessarily limited.

After thanking the RIBA for lending their hall for the Exhibition and arranging, with the Ministry, the course on hospital design for architects, the Minister concluded:

'All this is still further and welcome evidence of our common interest and co-operative endeavour, whereby together we shall strive to provide for our country hospitals





Professor P. L. Nervi being 'capped' by Sir Edward Appleton, Principal of Edinburgh University, when he received his Honorary Degree of Doctor of Laws on 7 July. Luigi Nervi is to design buildings for the new University playing fields - his first work in this country



Sir Basil Spence being invested with the Medallion of Honorary Fellowship of the RAIC in Winnipeg on 4 June.

Left to right: Dr F. Bruce Brown, FRAIC, Registrar of the College of Fellows; Sir Basil; Dean J. A. Russell, FRAIC, and Mr A. T. Galt Durnford, FRAIC, Chancellor of the College of Fellows, RAIC

worthy alike of our high professional tradition and of the noble purpose which they seek to serve.

It is with a sense of deep privilege and high hope that I declare this Exhibition open.'

#### Council Business

The Council met on 5 July with the President, Sir William Holford, in the Chair.

After the introduction of new members of the Council, the Secretary made his report, dealing first with the publicity given to 'Architecture Week' and the Manchester Conference. It was too early yet, he said, to estimate the success of Architecture Week; the reports asked for from the PROs of the Allied Societies would take some time to collect, but the press cuttings received showed that there had been wide coverage, in some areas at least.

The Conference had received unusually wide publicity, as the display of clippings in the foyer showed. In addition to a leading article by the Hon. Lionel Brett in *The Times*, and a special supplement in *The Guardian*, leading articles on the Conference had appeared in the *Daily Telegraph*, *Daily Mail*, *Scotsman*, *Observer*, *Star* and *Bournemouth Echo*, and it had been reported in virtually all the national and provincial dailies, and on radio and television news programmes.

The President's speech was given great prominence, and so far all editorial comment on his views on green belts and land speculation had been favourable.

Granada TV in the People and Places programme, interviewed Mr Leslie Ginsburg [A] on the problem of rebuilding Manchester.

The newly elected representatives were asked to make a point of reporting to their respective societies as fully as possible on the business transacted at Council meetings.

Other matters considered included Standing Orders. The current RIBA Council Standing Orders were drafted in 1947, and described in detail not only procedure in Council but also the form and sequence of agenda papers, and the conduct of business by the Professional Conduct Committee.

With the extensive revision of Committee Structure and the form of the Council Agenda paper carried out in 1959, these standing orders have become largely obsolete. In making a complete revision, the opportunity was taken of drafting separate standing orders for the Council and for the Professional Conduct Committee.

These drafts, after minor amendments, were approved by the Council.

#### RIBA Bronze Medal

The Jury entrusted with the award of the RIBA Architecture Bronze Medal in the area of the West Yorkshire SA for the three-year period ending 31 December 1959, have made their award in favour of Rhodesway Secondary School, Rhodesway, near Bradford. Architects: Messrs Scherrer and Hicks [FF], in conjunction with W. C. Brown [F], City Architect, Bradford. Contractors: F. Shepherd and Son, Limited.

#### Subscription to the ABS: action to be taken

On the initiative of Sir Basil Spence, and at the request of the Council, the Finance and House Committee, under the Chairmanship of Mr Hubert Bennett [*Hon. Treasurer*], made a study of the present sources of income available to the Architects' Benevolent Society, and of possible expedients for increasing that income.

It appears that after paying salaries and other overheads, the ABS has about £7,000 to distribute annually, of which some £3,000 comes from members' subscriptions. About £2,000 of this represents regular subscriptions under covenant (including £150 from the RIBA), but these are drawn from only 1,100 members or so out of 15,000 in the UK. If those who make isolated *ad hoc* donations are included, the proportion who subscribe annually is still under 10 per cent. The RIBA gives help in the form of free office accommodation, lighting, heating, telephone service, all postage, maintenance of office equipment and the provision of committee rooms, and committee and staff refreshments. This is worth £900-£1,000 p.a.

After considering and rejecting a number of expedients for increasing the ABS income, the Committee recommended the following as the most practical ways of helping:

- (i) A letter to be sent personally by the Secretary RIBA to each County, City and Borough Architect, and to each senior partner of every private office employing over ten members, asking each of them to appoint a local collector to make regular collections, and to keep in touch with the Secretary ABS.
- (ii) The RIBA to provide addressing facilities and to pay postage on a letter of appeal from the ABS to be sent individually to every member in the UK enclosing with it a form of banker's order for regular subscription to the ABS.
- (iii) The notice of subscription to newly elected members to be so amended as to encourage them to include a sum, or sign a banker's order, for the ABS.

touring  
London  
Wales  
size is  
for the  
urse on  
of our  
whereby  
ospitals

ST 1960

### Green Belts and Land Site Values

The Minister of Housing and Local Government, Mr Henry Brooke, made statements in the House (5 July) on Green Belts Policy and on Land Site Values.

I should like to make it clear, he said, that there has been no change whatever in my policy towards green belts, which remains the same as that of my predecessor.

Nor do I contemplate any change. I believe that green belts, once properly established, should, except in very special circumstances, be maintained inviolate; and I believe further that they will be so maintained over the years, for this is a policy which commands wide support.

It is, therefore, the more important to make sure that the land to be reserved for green belt should be decided upon initially with care and discrimination. Remarks to this effect have been misconstrued in some quarters, giving rise to a false idea that policy was being relaxed. The right principles are that a green belt should be established only where there is clear need to contain the growth of a town within limits which can be defined at the time; and the limits of the belt should be carefully drawn so as not to include land which it is unnecessary to keep permanently open for the purposes of the green belt.

Further, where a town is to be closely circumscribed by green belt, proper provision must be made for development beyond the green belt. This is a matter which local planning authorities examine when reviewing their development plans, and which it is my policy to take into account when considering and approving them.

On Land Site Values, the Minister said: What I am doing is to ask local planning authorities, in the reviews of their development plans now proceeding, to allocate more land to building beyond the green belts. In addition to that I am seeking to encourage the fullest use of land within the urban areas. But we have to face the fact that the demand in and around the most prosperous towns will continue to exceed the supply, unless we are to abandon planning policies of restricting the growth of towns, preserving good agricultural land and protecting the countryside; and that I am not prepared to do. What this means is that builders must turn their attention increasingly to redevelopment of older areas within the towns, which is our chief need.

I am not prepared to modify the policy of a free market in land, without which of course we should not have had the vigorous building progress of the last few years. What the situation calls for is administrative action of the kind I have described, rather than more legislation.

The following statement has been issued by the President, Sir William Holford, commenting on Mr Henry Brooke's statement in the House of Commons on green belts and the price of land.

Mr Brooke's statement is welcome in so far as there is to be no panic dismemberment of the green belts in response to the pressure for more building land. But that is only half the answer, and he has not given us the other half. Leap-frogging the green belts and building beyond them will raise the price of land beyond the green belts, and exacerbate and lengthen the journey to work in the centre. There is need for urgent and fundamental re-examination of the whole problem of future urban development and its effect on the countryside if we are not to run into even more serious trouble.

I am disappointed that Mr Brooke sees no need to consider some action, fiscal or otherwise, to prevent the more extreme forms of exploitation of the undoubted scarcity of land – a scarcity that will always be with us. There is a limit to what most people can afford to pay for houses, and the more they pay for land the less there is left for the house. At the present fantastic prices it is becoming impossible to satisfy the demand without reducing standards of space and amenity, and lowering the standards of building.

Good town planning becomes impossible when high prices, such as the £250,000 paid for about half an acre at Luton, compel the planning authorities to do what is financially possible, not what is socially desirable.

The National Federation of Building Trades Employers has also issued a statement on the points made by Mr Brooke.

The Minister's statement has given a clear lead to local planning authorities. They must examine the Minister's remarks in the light of the urgent need to allocate more land for building purposes. While accepting the Green Belt principle the Federation agrees wholeheartedly with the Minister that careful consideration should be given to the geographical details of any land so designated and to any proposals to extend Green Belts without considering what alternative land is available to those seeking to own their own homes. At the moment there are too many planning authorities who do not wish to make available more land for development. There is one County Planning Authority for example which is proposing virtually to turn the whole county into a Green Belt. The Federation is also concerned lest the action by planning authorities as a result of the advice of the Minister will be too slow to meet the immediate requirements.

The Federation's concern about land is based on the fact that it is a prime commodity. Without it there can be no building of houses, factories, schools or hospitals or anything else. Land is also the principal stock in trade of builders and its efficient and economical usage is vital to the nation. Therefore, the Federation urges that the time has come for the Government to carry out (a) a careful and scientific assessment of the land needed by the nation for development purposes over the next 20 years; and (b) a factual survey of the land that is likely to be or can be made available.

### ARCUK Statement

The attention of the Architects' Registration Council has been drawn to certain advertisements appearing in the professional press and to a number of circular letters that have been addressed to architects, both issuing from property-development companies, and offering to engage the services of architects who 'introduce' acceptable schemes for the development of property.

After very careful consideration the Council decided at their meeting held on 8 June, to advise architects that it would be highly undesirable for any member of the profession to respond to such advertisements or circulars. In the opinion of the Council architects should only undertake work on a proper professional and contractual basis with the client. The implied conditions under which architects are being invited to submit such schemes appear to the Council to be speculative and derogatory to the standing of the profession. Speculative because the architect's services would be engaged only if he finds a site and prepares a scheme for its development acceptable to the property developer; derogatory to his professional standing because he would in effect be acting as a sort of scout for the property developer without having first established the proper relationship of client and architect.

The Council have under examination the circumstances and conditions under which certain property developers engage the services of architects, and will shortly be issuing a statement on the subject for the guidance of architects.

### Allied Societies Diary

The Honorary Secretaries of Allied Societies are invited to notify the Editor of any outstanding events in their calendars for publication in the Diary column of the JOURNAL.

For reasons of space this list will have to be selective, but it is hoped to include any important meetings or interesting exhibitions which would attract members from outside the area, if they knew about them well in advance.

### Joint Consultative Committee of Architects, Quantity Surveyors and Builders

The National Joint Consultative Committee of Architects, Quantity Surveyors and Builders held a conference at the RIBA with the Chairmen of the Regional Consultative Committees on 25 May. Mr G. W. Grosvenor, CBE, was in the Chair.

On the subject of Building and the Economic Situation, verbal reports indicated that architects, quantity surveyors and builders were now generally much busier than they were in 1959 or 1958; there was, however, a shortage of smaller schemes in some districts.

Concern was expressed about (1) a shortage of qualified professional staff, particularly architects' and quantity surveyors' assistants, which was seriously hampering the pre-planning of jobs; (2) a shortage of key craftsmen, notably carpenters and joiners, and (3) the future availability of land, particularly for private house-building.

The Conference confirmed that the position as regards supplies of bricks and reinforcing rods had not improved; the development of a shortage of cement in the North-West was reported.

Turning to the scope and future activities of the Consultative Committee the Conference were informed that it was proposed that the National Committee in the coming months would concern itself, among other matters, with the preparation of a Code of Procedure for Project Management as a sequel to the 'Code of Procedure for Selective Tendering' and 'Plan Before You Build'. It would also pay special attention to public relations and to methods of securing the widest possible implementation of its recommendations.

**Firm Price Tendering:** The Conference recalled that when the Government decided to reintroduce Firm Price Tendering in 1957 they stipulated two conditions:

- (1) the estimated contract period should not be more than two years,
- (2) the works should be thoroughly planned in advance.

The Conference were of the opinion that while firm price tendering was generally proving successful, cases were being reported of inadequate advance planning on the one hand and

of failure to take advantage of planning on the other. It was agreed that the National Committee would give urgent attention to the preparation of a document on the need for planning, with particular reference to 'full documentation'.

Other matters discussed were the membership of the Consultative Committees and the obligations of the building owner under the terms of the RIBA Standard Form of Contract and in respect of the speedy completion of contracts.

### Cover Picture

In May 1959 the Royal Architectural Institute of Canada, foreseeing that Canadian cities would double in extent in less than a generation, set up a committee specifically charged with determining 'how the architectural profession can contribute more effectively to the improvement of quality of the design of our residential areas'.

The three-member committee, having conducted hearings in a dozen major cities during the autumn and winter of 1959-60, reported their findings at the RAIC Convention at Winnipeg last June.

The report is reviewed in this issue, and one of the illustrations in it is reproduced on the cover. The housing at Don Mills, Toronto, for Roy P. Rogers Enterprises, was designed by James A. Murray and Henry Fleiss, MMRAIC, who won the National Award of the Canadian Housing Design Council in 1959.

In this example advantage has been taken of slope to place full-height housing on the left and split-level terrace housing on the right. The road surface has been visually suppressed and not permitted to destroy any of the trees, and the building line is curved to obtain a sense of enclosure and seclusion. (Photograph: Max Fleet.)

### The Library Group: Officers

At the Annual General Meeting of the Library Group held on Monday 27 June 1960 - Mr E. J. Carter, BA(Cantab.), who was RIBA Librarian 1930-46, was elected Chairman in succession to Mr R. E. Enthoven [F]. Mr K. S. Mills [A] and Mr W. H. Allen [A] were re-elected respectively Honorary Secretary and Honorary Treasurer.

The model of the winning design in the competition for the Medical Teaching Centre for Wales was included in the MoH exhibition at the RIBA. Architects: Messrs S. W. Milburn and Partners [F]





# Looking ahead at the Building Industry

by Peter Trench, OBE, TD, BSC

Director, National Federation of Building Trades Employers

Read at the RIBA on 22 March, The President, Mr Basil Spence, in the Chair

I am deeply honoured, Sir, to be invited to give this paper this evening, and I feel somewhat humble because the subject that I am dealing with is of immense magnitude, and I am afraid I have only partially dealt with it.

I am going to start by telling you what I have not dealt with, not because I expect ever to be invited here again, but because somebody else might be, to finish off this particular paper. I have not dealt with the future of design, the future of techniques, the house-building industry, which I think has a future quite apart from this industry, a future of subcontracting or materials, or (and I think this is a very important subject) the future role of Government *vis-à-vis* the building industry.

The object of my paper is to stimulate thought and provoke discussion. I would say in advance that I mean to be frank, but I do not mean to be rude. My tongue may be in my cheek occasionally, but it is not sticking out. Because this audience is predominantly architectural – and I thought it might be – this paper is obviously biased in their direction, but any criticism of the profession should not be treated as coming from some carping sore builder, but from one who has many friends in that profession, and one who would sincerely like to contribute to the solution of its many problems.

It would be ridiculous to believe that the future structure of the building industry will not be influenced by matters quite outside its control, and it would be just as ridiculous to believe that these external forces are at all predictable with any accuracy.

The 'future' itself needs defining, for tomorrow is the future and so is the millennium: in fact I am confining myself to some 50 years. I do this for two reasons. First, because it is a useful cycle of time over which to measure trends, and, secondly, unless some quite extraordinary medical development takes place, it is extremely unlikely that in 50 years' time I shall be here to be proved wrong!

The influence of political economy more than anything else is likely to shape the building industry of the future; and if I seem to take up a great deal of time on this it is only because I believe that this influence, together possibly with a change in education philosophy, rather than design, technical, trade union or any other influence, is likely to be the greatest factor contributing to our industrial evolution during the next half-century.

## Economic considerations

*Ceteris paribus* – a Roman economist's phrase meaning, 'Don't tie me down to this, old boy' – *ceteris paribus*, it would seem that there are two reasonably basic assumptions for the future. First, that our population is likely to increase out of proportion to our natural resources, and, secondly, that our rate of expansion is likely to be dependent on our ability to sell – not here, but abroad. On a further assumption that despite the very real likelihood of being able to choose the sex of our future generations there is little likelihood of producing a number of supermen, then our future prosperity depends on better education and training in the broadest sense on the one hand, and technical advances on the other.

One thing is quite certain from these assumptions, namely that our resources will never be really adequate to afford the

luxury of waste, whether it be manpower, raw materials or brains. Nor in the years to come will we be able to stand aloof in our island fastness, basing our independence on the glories of Empire. With the rise to top world status of China over the next 50 years, with Russia looking quizzically over her shoulder and the USA busy courting her northern and southern neighbours; with all of them watching keenly and vying for the development of the underdeveloped, a tremendous amount will depend on the unification and economic and political stability of Europe. And as sure as eggs are eggs we will not be able to contract out of our European responsibilities.

The somewhat disparaging description of the building industry as a 'sheltered industry' is unlikely to apply by the end of this century. If the building owner in 50 years' time will be able to get a better building from a German architect-engineer, or even from a German building firm, patriotism is unlikely to prevent him from doing so.

## Political considerations

Politics of course cannot be excluded from these considerations. During the 50's the world, including Russia, swung politically to the right. What of the political future? If we were to assume a check, and even a long-term reversal of present trends so that the pendulum swung back to the left, then we might envisage the building industry split down the middle, with the majority of work carried out by public or local authorities, perhaps by means of their own direct labour organisations, leaving a minority residue carried out by private enterprise and a dwindling number of larger contractors. This, however, I believe to be a false political assumption, and only if we fail economically will we be faced with a structure such as this. A rising standard of living, full employment, coupled with an educational and training revolution which I believe we shall see during the next 50 years, will favour the right and centre parties, and although all political thought is likely to be progressive in the sense that all political parties will accept a high minimum standard of social responsibility, I do not think we are likely to see the advent here of a true Socialist state. A probable lessening of international tensions with the resulting economic impact of disarmament gives added strength to this particular assumption.

So far I have tried to paint the backcloth against which the building industry might be spotlighted – a picture of a country participating in the destinies of an economically unified Europe, and one possibly precariously balanced with regard to its economy, depending on the skill and ingenuity of its people in its endeavour to maintain prosperity and increase its standard of living.

## The industrialisation of building

Few industries have achieved their end product in conditions so conducive to waste as building: some of those conditions are of its own making, but others are the result of working in the open with a constantly changing labour force. It has been estimated, for example, that the loss of output each year from bad weather alone is equivalent to a permanent



loss to the industry of a labour force of 50,000 men. Many of the traditional building processes are wasteful in the extreme. Inefficiency and poor production are two more factors which contribute to waste. The country cannot afford this waste now and it will certainly not be able to afford it in the years to come. The antidotes are already emerging – better training, increased managerial skill, mechanisation and prefabrication or off-site preparation – they are being forced on us by the external influence of economics, and the trend will continue.

This trend towards the industrialisation of building, made inevitable by high site costs and low output, will in itself give full scope to the increasing use of new management techniques such as planning, work study and incentive schemes, for these are more capable of fulfilment in the factory conditions of pre-assembly and the mechanised site than they are with today's building processes. It has been computed that 40,000 concrete mixers are in use on sites at any one time and in many cases turning out concrete for placing in formwork fabricated under site conditions. It is well worth considering the saving in men and materials (although not necessarily in money) at the moment by the use of ready-mixed concrete, scientifically mixed and controlled at a central depot and poured into formwork prepared off-site, or alternatively, the use of precast and possibly prestressed concrete units fabricated under factory conditions. Such trends towards the reduction of waste in men and materials cannot be sustained, however, unless the relative costs are favourable and designers and erectors are themselves prepared to experiment in this direction. It is curious to think that we have only recently arrived at a stage where the cost of site labour on a normal building job has made large-scale mechanisation an economic proposition, not only because it has led to a reduction in overall costs, but because the whole building process has been speeded up, with the indirect savings that go with getting a building into production at the earliest possible moment. The growing understanding of the economics of fast building will no doubt contribute directly to the trend towards industrialisation.

To summarise so far, I foresee, therefore, a larger volume of work being carried out by a smaller site labour force, mechanised and competently directed, and using a small number of prepared components. In case this should be misinterpreted as a forecast of redundancy, let me make it clear that I see no reason to believe that the total manpower servicing the industry will be altered, but its distribution and its emphasis will change and its volume of output will increase. Such a glittering future has some very important prerequisites, however! Better education and training in every department is one.

#### General education and training

It is not known, of course, how much of the Crowther Report will be adopted or when; in fact a little more is known than when I wrote these words, but over the next half-century certain main principles are likely to be established. First, the school-leaving age will be progressively increased. Secondly, some form of post-school education and training will become obligatory, and thirdly, the status of the teaching profession itself is likely to receive the recognition which is its due. The sum-total of this must be that those entering the professions, industry and commerce will be better educated than in the past, and as such their choice of careers will be influenced by the opportunities open to them by those competing for their services.

#### Management recruitment

To their credit, some progressive-thinking builders have become aware of this fact and, anyhow on the management side, are setting their sights at new levels both in attracting and training recruits. In consequence, although everything

in the garden is by no means lovely, I have little doubt that on the production side of the industry there is likely to be a rapid increase in managerial efficiency (and here I include site supervision), and with the recently revised examination syllabus of the Institute of Builders the first steps have already been taken to secure the future.

#### Recruitment of operatives

But what of the recruitment, education and training of those members of the industry, now numbering over a million, who carry out the work on building sites? Here I am anything but happy about the future. I believe there is a desperately urgent need to re-examine first principles. First, concerning the attractiveness of the industry, and secondly, concerning the training of those entering it. I will say no more about attraction than that this is not merely a question of financial reward, it concerns working conditions, ladders of promotion, reward for merit, and a tremendous job of public relations. This is a paper in itself, but I am concerned that if we are unable to raise the status of the whole industry in the eyes of the general public, the changes that many of us would like to see will be very slow in coming about.

On the training of our operatives I would say this. We have accepted the craft principle for a thousand years and more, we have accepted the sole division of craftsman and labourer, we have accepted that the training of a bricklayer and the training of a painter require similar periods of time. We have accepted the unscalable barriers between the crafts. We have accepted many other craft principles – without question. I suggest that the time has come to question those principles and to look at the real requirements of the next 50 years. What skills will we need to carry out new work and maintain the old? How much time can be afforded to train young men in building circular Elizabethan chimney breasts and rubbed brick arches? Is there a need for a multi-skilled operative? What of those men whose manual dexterity or craft skill is less than the so-called craftsman, but who are responsible for an expensive machine and whose contribution to the financial success of a job is far greater? These questions must be answered, and the sooner the better. How can this be done? First, there must be a reassessment of user requirement, or in other words, an industrial job evaluation to establish the varying skills and degree of skill and responsibility required by the building industry of the future: I emphasise the future; secondly, training programmes must be devised to cater for these skills, and lastly, the barriers of demarcation must be broken down. This is probably one of the most difficult problems facing the industry, and in particular the trade union movement. It must be met with courage if we are to compete for our fair share of manpower and make our rightful contribution to the national economic well-being. It requires in the first place an agreement by employers and unions that a scientific research project should be initiated by one of the universities or the Building Research Station – probably requiring several years for completion – so that the true requirements of skill in the industry may be established.

If, and only if, this is accomplished, will we see the base of our industrial triangle firmly established. For, as I have already said, over the next 50 years the true pattern of the industry should be a smaller but better trained and a better paid labour force, organised by more efficient management, carrying out a greater volume of work than now. Only in this way can this tremendous industry of ours play the part demanded of it in the economy of the future.

#### Size and scope of building firms

What of building firms themselves? Recent trends have shown a reduction of the overall number of building firms and an increase in the larger units. This is not surprising since the industry has been sorting itself out from its post-war mushroom growth. But will it continue? I find my crystal ball a

little hazy on this, and any answer must be hedged around with 'ifs'. If we proceed in a series of minor financial crises interspersed with boom conditions – and this I believe to be very possible, for although we have learned how to avoid the long pre-war trade cycles we have not learned how to achieve stability – then I fear for the medium-size building company. Unless such a company can put aside sufficient in the bright times to tide it over the not-so-bright, I think it will see its bread and butter taken from it in times of recession only, by the larger firm coming into its area and zone of influence. This larger firm, more and more with its own cheap and efficient patented construction system, prepared off-site again, will, in times of stress, break into that part of the market which normally it would not wish to touch. Unhappily for them, the medium firms are not always able to take one step down and break into the jobbing and maintenance market, for here not only will their overheads and organisation not allow them to compete economically, but the small local jobbing builder is firmly and often unshakably ensconced. The advantage that the small local man has over others is not always realised. Such advantages include a comparatively low overhead and a small but permanent labour force often unbedevilled by such complexities as demarcation and special rates. In building, the builder goes to the job – the job cannot be brought to him so, like garages and filling stations, geography and convenience play a big part in keeping a number of small firms in existence. It must be remembered, too, that in the latest figures, of the total of £2,200 million of construction work, £460 million was in repair and maintenance, a proportion which must be kept in mind when talking of new skills and the future. There is no reason to believe that this proportion is likely to decrease, nor is there any reason to believe that the structure of that part of the industry responsible for it is likely to show any revolutionary changes.

Again, certain other 'ifs' over the next half-century could see the advent of the large regional builder as opposed to the London national contractor. For this, much depends on the willing mobility of labour, communications and the whole spread of urbanisation, but it is not impossible, on economic grounds alone, to envisage a regional (50-mile radius) concentration with a more stable, mechanised and technically equipped labour force. The alternatives to this are the growth of the large regional subcontractors or, what is more likely, the taking over by national contractors of strategically placed medium-size firms on a regional basis.

The structure within firms has altered quite considerably in the post-war years. The administrative to executive and the non-technical to technical staff ratios have changed and the recruitment of management specialists such as work study engineers, cost and bonus surveyors and the like has added further to the overheads of the medium and large building firms. The trend is likely to continue, bringing with it the organisational problem of maintaining a sufficiently profitable turnover to justify the high overheads (comparative with earlier times) now required by the efficiently managed building company: a problem which has a direct bearing on the system of contract in use at any one time.

The employment of design staff by builders is not new, but there is every reason to believe that this practice has grown of late. I have little hesitation in saying that in the years to come architects with the necessary qualifications will take their place alongside engineers on the boards of building companies. Moreover, this move should be welcome for at least two reasons. First, I anticipate that a limited number of building owners will continue to deal direct with building companies and this in itself justifies top-level representation of men trained in design, men who round the board-room table can influence colleagues concerned mainly with production. Secondly, with the continuing trend towards negotiated contracts the extent of the contribution that a builder can make at the design stage of a project is commensurate with the calibre and training of his staff. Here again I con-

sider the future architect has a role to play at board-room level.

### The contract system

Let me now launch straight into the anathema and dilemma of architects, the packaged contract. Frankly, this has emerged for two simple reasons. First, the builder has found that he has a less frustrating and more profitable life under this system of contract, for by controlling design and construction and the flow of information required for production he is enabled to function more efficiently, thereby facilitating an adequate profit and, secondly, for sheer speed from conception to completion some building owners are persuaded that this is a better method than the generally accepted one of competitive tender. I might add that, heretical as it may sound, to many building owners the fact that the building may suffer aesthetically is of no great importance provided it functions well, and, moreover, the fact that by spurning competition theoretically he might pay a bit over the odds does not matter to him provided the finishing price is within his budget and he gets his building on time – two phenomena generally capable of fulfilment by a competent building firm given full control of the project.

The dilemma, of course, is that by insisting on a competitive tender system which is frustrating and unprofitable to the builder, the architect has put a noose round his own neck, for he has driven builders, anyhow the larger ones, into producing more remunerative and less frustrating ways of doing work. He has done this without being able to find a competitive alternative where the interests of all parties coincide.

The packaged deal, the consortium of architect, quantity surveyor and builder, the negotiated contract will all have their place in the future, as will no doubt the growing civil engineering trend towards competition on a basis of design and erect. Two factors may well influence these trends: first, joint education about which I shall say something pretty pungent in a minute and, secondly, budgetary control, by which I mean the possibility not only of planning a building within given limits of expenditure, but the capacity to control building costs so that the limits are not exceeded.

The degree to which contracts are carried out by these means will depend on the competence of the independent architect on the one hand and the real, not fictitious, contribution which a builder can make if brought in at the design stage, on the other. I do not wish to be side-tracked on the question of professionalism and in particular the professional builder, but I am inclined to believe that with better education and a higher calibre of entry into building firms the need for independent watchdogs of high moral standing is likely to decrease rather than increase.

It would be foolish to think, however, that we are likely to see the demise of the competitive tendering system. After all, the local authority and publicly employed architect, even if he does so against his better judgment, is generally forced to go out to competition. He is sitting fairly firmly in the saddle both now and in the future: no packaged deal for him and no noose round his neck; and is he not responsible for a large proportion of the building work of the country? His lords and masters will by tradition, statute and regulation continue in many cases to force him to put numbers of builders into competition. The glimmer of hope here is the growing official realisation at Treasury level of the need for long-term budgeting and financial allocation for building programmes: with such a state of affairs it will be possible for public and local authorities really to provide documentation to a limited number of tenderers in such a way that sane and intelligent pricing will result, the estimator knowing that the chance of extras will be few, if any. Estimating itself, influenced by the growing collection of work values and feedback of costs will assuredly become more scientific in the years to come. Alas, scientific estimating based on historical

costs in itself does not ensure obtaining the contract: in fact it might result in never obtaining a contract at all, and the man who goes in at less than cost will no doubt live to fight another day. His days are, however, I submit, strictly limited by the competence of the architectural profession itself.

#### The quantity surveyor

Time precludes my making more than a passing reference to the surveyor (or for that matter the consultant), but he himself must feel that he has played himself into a permanent place in the first eleven. Having been tried as a bowler of builders he is now playing some delightful forward strokes on costs as well as occasionally doing some brilliant saves on the boundary off loose architectural bowling. Before also taking on the job as umpire he would do well to ponder on the absence of his profession in the USA and the relation of this to the completeness of information allegedly supplied by the American architect to the American constructor. Whether this is 'post', 'propter' or just 'malgré' I would not know. (I am sorry about this, Mr President, but I had lunch with Mr and Mrs Leslie, and he of course is a classical scholar, and Mrs Leslie is French!) As to the future, here I would only comment that in my opinion the emphasis in quantity surveyors' offices may well change from bills of quantities to cost consultancy.

#### The role of the architect

As for the structure of the architectural profession, this is a very different matter. Unlike some people, I am fairly convinced of two things: first, that the problems confronting the architectural profession are rivalled in their complexity only by those confronting the trade unions, and secondly, that a scientific analysis of these problems and a bold decision to shape long-term policy is of vital importance not only to the profession itself but to the well-being of the industry as a whole. Having said that, I will add that from what I have heard of the Oxford Conference and subsequent evidence, the RIBA is fully aware of its responsibility in this matter.

Here I must refer to that thought-provoking paper of Mr W. A. Allen, 'The Profession in Contemporary Society', given here on 8 March. I go with him much of the way, but at one point our paths diverge to some extent – it is when he starts to develop his thesis on the architectural profession itself. 'It seems to me', he says, 'that our greatest difficulties spring from the fact that we have to be at once artists, planners, technologists and men of business. . . .' He continues a little later, 'It is occasionally said that we try to encompass too much, but to concede this would be to accept that the practice of architecture itself had become impracticable'. He denies that this is so, provided that the quality of entrant and his training is sufficiently high. I beg to differ with my good friend Bill Allen, on a matter of degree. The practice of architecture in his context and as it is envisaged today will shortly become impracticable of achievement, if it has not already become so. If the architect of the future attempts all the functions at present attributed to him, great architecture and efficient building will be a matter of luck. In hushed tones, therefore, I say the architectural profession is trying to do too much in its eagerness to retain its leadership. It is, in fact, taking upon itself responsibilities which do not rightly belong to it in modern times, and its future, to my mind, depends on its shedding some rather than attracting more. There are but few men who can combine the qualities of artist and leader, or the qualities of artist and business man: there are many who can combine the qualities of artist and technologist; there are, indeed, large architectural partnerships where all these qualities are to be found among the partners combined, but what hope has the individual of assimilating the knowledge and gaining the experience at present demanded for 6 per cent? What is, then, required of the average architect in an industrialised building industry? Above all he must be a technologist and on the design side he must be as intimately

concerned with the design of the component parts that go to make the building as in the building itself, and to retain his place as leader he must not try to do everybody else's job, but essentially he must have powers of decision, communication and co-ordination. How I agree with W. A. Allen when he says in his paper, 'A good building is a single organic embodiment of all its technical functions, its planning requirements and its aesthetic idea: it requires policy-level thinking about each aspect in order to get it organised properly from the outset. We require therefore neither a mere acquaintance with these technologies nor yet a full-blown computational familiarity, but the basis for sound policy decisions about design, and this often involves not engineering alone but economic, industrial and human parameters.' Many buildings will become more, not less, complex in the years to come and the good architect, by accepting the limitations of his own knowledge, will be the one who knows when to seek advice from others and how to use that advice when obtained. If he attempts in his training really to master such subjects as engineering, estimating, costing and production management, to name but a few, he is attempting the impossible: these are the spheres of the consultant, the quantity surveyor and the builder, by no means forbidden spheres, but where the combined expertise required is quantitatively beyond the capacity of most men.

Whether the architect of the future remains independent of the building owner, whether he is employed on the staff of the building owner – and that building owner may be a government department, a local authority or a private concern – or whether he finds himself as a principal in a building company, I suggest the above considerations apply. What then is his chance of leadership? Superior intellect or knowledge and a professional status will be insufficient by themselves to ensure the architect's position in future society, and by surrounding himself with a mystique of aesthetics he will lose, not gain, the confidence of the building public: without that confidence the chance of leadership will disappear for ever. To gain it he must show that he is capable of leading a team which can produce in time and at a predetermined price a building that looks well, functions well and is well built. If he can't, then he must not be surprised if the public turn elsewhere, and for the answer to this he must look at his present training.

But no good will ever come from builders disparaging architects and vice versa: accusations of incompetence on the one hand and roguery on the other can only do a disservice to the industry as a whole at a time when jointly we should be seeking the goodwill of those who give us our bread and butter.

#### Joint education

Such forebodings have been disposed of in the past, but it is my duty this evening to look at the future and here I put my money in 50 years on joint education for architects and postgraduate specialisation. And by 'joint' I mean courses common and shared by builder, engineer, architect and quantity surveyor, not a college with separate faculties and a joint meeting of the clans for an occasional subject or a glass of coffee in the refectory, but three years' common grind followed by two years' specialisation – then out into the cold world or a further two years of postgraduate study.

The elaboration of this somewhat bald statement is again a paper in itself, but it is not put forward without quite a deal of thought and is I believe not an unrealistic approach to the 50-year future. The three- and five-year break clauses permit a sorting out by the students themselves as well as by those in charge of their education, and they will, above all, produce the interchangeability and understanding so essential to the future. The seven-year end product will be the potentially great architect of the future, a man trained to design and lead. There will be few of them, and it will be to them – the architects – to whom would-be owners of fine buildings will turn for guidance. The five-year product will work for the



architects or they will go into building firms where they will take their rightful place according to their skill and responsibility. Some of them of course will always find a home in the smaller practice which does not aspire to tackling the large and complex building project.

If I am anywhere near the target in this crystal-gazing, design and production will be co-ordinated in some cases and integrated in others. The designer will have on his staff men who understand production and who will supervise the project at the letting of the contract: the builder, or erector of buildings, will have on his staff men trained with a fundamental knowledge of design. There is every reason to believe that in an industry based on this type of organisation there would be an interchange of staff between architect and builder.

Is there a place in this structure for those whose interest is art alone? Should there be a class whose responsibilities are limited to design? I think this is possible in the same way as the painter and the sculptor will continue to contribute to building. Such a designer might well work in conjunction with building firms on a particular project but preserve his independence on a consultant basis. Let us make no bones about it, however, he is not the architect of the future, for he is solely an artist and the future architect cannot afford solely to be an artist.

Perhaps of all the points made so far the one I would like to emphasise most is the educational one of joint training. Again at the price of being unpopular I say that the RIBA more than any other body is to blame for not taking more realistic action in this sphere. The lip-service paid to joint education in architectural circles and the failure really to face up to it has led me and possibly others to the conclusion that it is the belief of the architectural profession that they will

be the losers by such a move and that it can best be resisted by inactivity.

What are the true reasons for the shyness of the profession's official body in this matter? Is it because they do not think joint education necessary? Is it because they do not know how to set about it? Is it because those in charge of architectural education believe that they personally would be the losers by such a move? Is it the vested interest of architectural schools in the *status quo*? Is it because deep down there is a feeling that there will be a loss of status or caste and a debasing of the architectural coinage? Or is it simply a belief in the inevitability of gradualness and a hope that 'things will sort themselves out if left alone'?

These are dangerous and I suggest short-sighted concepts for, if my thesis is right, the future of the profession will be in jeopardy unless it accepts the fact that efficiency will result only from an analysis of the requirements of the industry, and a policy of training to meet those requirements. I have in this paper attempted to analyse these requirements over the next 50 years, first from the point of view of those who assemble the hundreds of thousands of components that go to make a building and, secondly, from the point of view of those who design and organise the erection. The time has come when such analyses should be carried out, not by amateurs like me but by a research body aided by all sections of the industry. Such analyses take time and time is not on our side, and since particularly it is not on the side of the architects, I would suggest that really urgent action be taken to give an honest look at joint education, for as I have said earlier, the future structure of the industry depends on economics and education: only the latter is within the industry's own control.

## VOTE OF THANKS AND DISCUSSION

**Mr Donald Gibson, CBE [F]:** I think there are a great many things which Peter Trench has put to us to discuss together which I think will surely be good for us. I would like to pinpoint one or two, if I may.

First, perhaps, the challenge which he throws out that it is better that we realise the common market in Europe will mean that big building contracts will be carried out in this country by other nations and, one hopes, by ourselves. This, to me, says we ought to think a little more than we do at the moment in our Commonwealth Relations Committee about finding our own place in the present shrinking world of the British Empire and Commonwealth. We ought to be seriously considering it.

A point I would like to make on the question of the package deal and the contract procedures is that the things which purport to see that one's client is getting the best value for money and time are, I suspect, often doing the reverse. One could get out a summary of the amount of design and labour for competitive tender: I think there are far better ways of doing this with assurance and hope for private people. The Government ought to be taking steps to test these things out by controlled experiment.

First of all, I would say why not have annual contracts by which some of the market can get greater continuity of work without people wasting their time trying to find jobs?

One point, incidentally, on that line: Peter Trench says the architectural profession is not helping itself in this way at all. I do know of a whole group of local authorities now building up to five million pounds' worth of work every year on which they get annual tenders and the best pos-

sible prices. They are, in fact, looking after this job for their clients, and things seem to be working very sensibly. This may be a thing Peter Trench might like to talk about, because it seems to me one way to get the results we all wish to get.

On demarcation: one sees this is going to be a growing serious problem. If in fact one gets a more efficient building industry and architectural profession working with it, there will be fewer chaps with spades messing round sites, and more work will be done under more control and more ideal conditions. In so many ways – one can quote plastics for everything – plastic plumbing, prestressed concrete planking instead of ordinary planking, steel frame erections, vibrated foundations – sprayed finishes instead of ones put on by hand, and lots of the sort of things which will, unless coped with intelligently, become problems. This must be on the builder's side: we cannot – except by knowing it is going to happen – make any great contribution there.

The real thing Peter Trench has been saying is that we should put our own house in order in the matter of education, on the lines which he has indicated. There I am absolutely with him. Many of you have experienced the time spent drawing coloured circles, looking at buildings and measuring them, preparing history sheets, doing lots of working drawings, putting 20 windows when only one was needed, and never having any cost problems associated with any design scheme we do. All these things, one suspects, are the Prix de Rome attitude of the grand manner architect, and inherited.

There is an indication of where we have got to go, I think, if one senses what is

probably happening in the LCC and one or two other authorities at the moment, and what one hopes to see at Nottingham University and Bristol University, where there are opportunities for new Chairs developing, and the tendencies at Liverpool, Leeds and Manchester, where some of the influences of building in its wider sense are finding their outlet in the mixing with our own profession.

The RIBA have asked for a second Oxford conference, to have another go, and decide what they are going to do about it. It is at this moment Peter Trench comes here, when we ourselves are trying to look at the very problems he has mentioned. Most of us know them and they must be solved. It is only in joint harness that we are going to make the best contribution for our clients. We cannot go slow: the whole thing, as I see it, is breaking up. I am glad it is, because I think what lies in store is more healthy, a more exciting prospect for all of us, if we can only see it that way.

My job is really only to thank Peter Trench. I have had the advantage of seeing him in the Eighteen Club, where we have nine builders and nine architects, and meet four times a year to have chaps like Peter who tells us what he knows, and we find it stimulating to have him here this evening to give us such an interesting paper.

**Mr Roger Walters [A]:** Peter Trench is a remarkable man. He is often told by architects that he should have been an architect: other people tell him he should have been a quantity surveyor, or a subcontractor, or whatever it is they happen to do themselves. This is not only because they recognise him as a man of great ability: they also



feel instinctively that he is in league with the future.

Tonight he has looked coolly and steadily at the future of the building industry and we are sincerely grateful to him. As befits the holder of the Territorial Decoration, he knows the difference between strategy and tactics. As I agree with almost everything he has said, in both categories, I will simply add four brief points, two in each category.

Strategically, the external forces which Mr Trench has described may compel the building industry to adjust itself, not only to the Industrial Revolution, but to the scientific revolution as well. The difference, in terms of industry, is significant. The Industrial Revolution was the time of experiment, of trial and error, of great invention, of designing machines to make things, and of testing the product afterwards. The scientific revolution, which is already under way, is the time of designing process-controls for the machines, of making sure that things are well made from the start, of testing at the point of production, of operations research, of making your choices on quantified evidence – a time when your most valuable materials are statistics. We may expect this attitude of mind gradually to permeate the thinking of all those who make things, and we may expect it, perhaps rather more gradually, to find its way into the thousands of choices which go into the design and erection of a building.

The second strategic point is the idea of a high rate of technological change being continuous. At the back of our minds there is still perhaps the thought that when the upheaval is over, things will settle down – that building technology will somehow become stable once again as it used to be. But it is quite possible that it will not, and that we may have to get used to the idea that changes of the magnitude which used to take centuries to accomplish will, from now on, be carried through regularly by each new generation.

At the tactical level, what can we, as architects, do now, to begin to adjust ourselves to the future which Mr Trench has outlined for us? Mr Trench and Mr Gibson have both stressed the key position of education, and I agree with them. But if all that Mr Trench has forecast is to happen in the next 50 years, this is not enough time for us to leave it all to those who will follow us. Of the many courses of action which are open to us, I would like to mention two which seem to me to be possible now.

First, we could recognise that the only evolutionary future which awaits us is in association with others. We could, perhaps, relax our minds a little about our profession, and be prepared to say that we are not only interdependent with the building industry, we are part of it. Far from being an intellectual island, it seems to me that our profession is destined for partial integration with the rest of the industry as surely as the United Kingdom is with the rest of Europe.

In the recent reorganisation of the Institute, we have selected certain subjects which need immediate study. Among these are education, cost planning, technical information and economic research. We are already moving towards joint education. Could we not move towards joint action in other fields also? Starting with joint committees, could we not work towards setting up jointly-run centres or

institutes, where research studies could be carried out, where ideas and knowledge could accumulate, and to which the whole of the industry could turn for expert and impartial advice? And might not such organisations eventually tend to come together, towards the kind of unified body which Peter Trench has suggested? It seems to me that in this way we who have had our education could begin to direct our thoughts towards the more closely integrated building industry of the future.

Secondly, could we not undertake more research and development ourselves, not only at research centres and universities, but in our own architects' offices, particularly the larger public offices? Thanks to Stirrat Johnson-Marshall and his colleagues at the Ministry of Education, we know how to operate a development group in a public office. These are simply groups in which architects, quantity surveyors, engineers and others are given time to pool their skill in the study of the human needs of buildings, the technology of building them, and the control of building costs. If each development team, within a group, focuses its work on an actual building project, its direct output may well be equal to 50 per cent of that of a normal team. If a really substantial number of public offices could accept the comparatively modest investment involved in running a development group, they would find it repaid them handsomely in terms of better design and better budgetary control. If the knowledge accumulated by such groups could be communicated amongst them, and between them and other architects, and to the schools, it might help to secure the lasting goodwill of those who control the money we spend.

As you can tell from what I have said, I am very much in sympathy with the attitude of mind which lies behind Mr Trench's excellent paper, and it gives me very real pleasure to second this vote of thanks.

**Mr Sidney H. Fisk [4]:** Mr Trench has referred to improved management techniques and the elimination of waste in the use of plant – in short, an increase in productivity. He told us why the package deal has come about; or was it perhaps that this gave builders a larger slice of the cake?

**Mr Ronald Milstone [4]:** I want to refer to Mr Trench's remark that was rather lightly brushed aside, about the charges and counter-charges between architect and builder, of inefficiency on one side and roguery on the other. Whilst we are all prepared to dismiss these with a laugh, it would be useful to see how far and how deeply it goes into the relations of the architect and the builder.

It is reflected principally by the whole form and structure of that magnificent document, the Standard Form of Building Contract. That document was produced, I submit, on the basis originally that the contractor was a rogue and the architect had to look after the work on the site on behalf of the client, to make sure he was not being swindled by the contractor. I think we can both superficially and at a deeper level dismiss that conception now.

Mr Trench remarked about training of management in the building industry, and I think we all know that some of the gentlemen we meet on the site who represent the contractor know as much about most things

as we do, and more about some of them. They are prepared also to agree that we know more about some others. If we are prepared to accept that the contractor, if not a professional man, is at least approaching the standards of behaviour that we like to ascribe to professional men, we must go back and question whether the whole contractual procedure of a document based on the Standard Form of Contract is still necessary. This is most important in relation to Mr Trench's remarks on package deals and competitive tendering.

**Mr H. Hermann (Editor of THE OPERATIVE BUILDER):** I am speaking as a member of the trade union.

Mr Trench made some observations about demarcation, but trade unions are a very conservative bunch, as a whole.

It is not surprising we have demarcation problems. This is an economic problem. If in the next 50 years we can see the decasualisation of the industry, the demarcation problems will disappear automatically.

**Mr William Allen [4]:** I was very comforted to find Mr Trench did not cut me down in my tracks for what I said here a fortnight ago: I am grateful to be alive, and in my whole skin.

I would like to pay my tribute, first of all, to a splendid paper. It will go out to the world and be read for a long time, far beyond these walls.

I was sorry that he did not say much more about the trade union problems. Although he addressed much of his time to us and our problems, for which we must be grateful, I think we are all really rather concerned about the state of labour on building sites. It seems to me a very worrying thing altogether, and I would have been delighted if Mr Trench had been able to devote more time to speculation on their problems and their chance of emerging from them creditably.

Architectural education was really the heart and soul of what he had to say to us. He speculated a good deal upon why we did not give our backing more heartily to joint training during the last two or three years when it has been so much in the air. Now it is interesting to have this from a builder's point of view, because we have all seen it from the architect's point of view. We have not backed it hard, perhaps because the Institute has not an educational mechanism of its own, in the sense that it does not do any teaching – it can only indirectly influence the Schools, which are largely university bodies, and therefore independent. I am sure we could have given far more backing to it than we have done. I think we must confess and recognise that the fault is really with the Board of Architectural Education which we have had until recently.

I hope everybody realises now that a major reform, following the Oxford Conference, has taken place. This body, which was criticised 30 years ago for being far too large and far too representative ever to have any capacity to act firmly or quickly, has now become the advisory body and executive body much smaller in size, and we hope a greater capacity for action has been ensured. This seems to me to be fundamental as an instrument, but only so if in fact it receives from the Council a very clear directive to get on with the job

of changing the whole climate of opinion and the whole set of values which Schools adopt at the present time, which seem deplorably out of date. They are far behind on their technology, very willing, but not aggressively attacking the problem of teaching costs, beset by difficulties which have surrounded them for the past 25 to 40 years of their existence. Architecture is set up often in the wrong faculty, within the Faculty of Arts, itself a symbol of the wrong direction which things were taking for such a long time, and beset by the low standard of entry which we have worked to, also beset by the grave difficulties which I discussed in my own paper: of how to teach technology in this modern age to architects at a strategic level.

It is a very difficult problem: we cannot severely criticise them for not solving it more quickly than they have done and are doing; but it would be more comforting if they recognised the difficulties more clearly than they do at the present time. Looking back over this past month, I think we might recognise that the ides of March for 1960 might have some significance for this century.

**Mr A. W. Cleeve Barr [4]:** I think Peter Trench's paper comes at a timely moment for us in the work of the RIBA and Council. The profession has been asking for a hundred years whether architecture is an art or a profession. Bill Allen's paper on 8 March set the seal on the fact that it is a profession, without becoming any less of an art.

Mr Trench says the profession is a part of the building industry, and I personally would like wholeheartedly to subscribe to that view; but the whole profession does not subscribe to that view, and we have a particularly important task in front of the Council in the next few years to give a lead in the responsibilities of the profession within the industry.

I would like to comment on three points made by Mr Trench:

(1) It seems to me that the whole idea of architects working within building contractors' organisations is much at the same stage as architects working for local authorities was 40 years ago – a slightly down-trodden class, who had to fight their way for independence and ideas. In the last few years we have seen county and city architects in their own right becoming established, when still in 30 or 40 major cities the chaps are working under other professions in a subordinate capacity. Now in the building industry, within contracting organisations, the same struggle is beginning all over again.

I welcome the idea that architects should be able, within contracting firms, to become directors. It seems to me much the same right as to become chief officer in a local government office in your own right.

(2) Joint education: I do not accept, as Bill Allen said, that it is the architects' fault that this has not come about. It has taken many decades to get builders to realise that education for builders is necessary at all! It is only very recently that the Institute of Builders has begun to think of putting its house in order from an examination point of view. We had the Oxford Conference; they have new ideas; we are starting from scratch.

(3) I am sorry that Mr Trench excluded house building from his paper, because it constitutes an immense total of work annually, and more and more the larger building firms are going in for house building, and undertaking it, I had hoped, in a more organised way. So I would like to ask Mr Trench why he excluded it, and if he does not hope that in the future house building will become subject to the same techniques as the rest of the building industry.

**Mr Gontran Goulden, TD [F]:** I should like to support the vote of thanks to Mr Trench, and take him up on the question of education. I would not call myself an educationalist, but I was concerned with architectural education in another place for a number of years. During that time we thought a lot about joint education, and we consulted a great number of people and builders, among them Mr Trench. One of the reasons it never came to anything – though they are still talking in the other place – was that we could never get two builders to agree on any side of this point of joint education.

Mr Cleeve Barr took the words out of my mouth when he said builders really did not think much about education until almost the other day. Now they are in a strong position, having got their new syllabus out, saying, 'We're all right, Jack: when are you coming along?'

Mr Trench was terribly mild – he can be frightfully rude, as anyone who has sat in committee with him will know. It is always good to be on the side he is being rude from. I would like to thank him for a very interesting paper, and I hope everyone will read and think about it, because I think he could have been a bit ruder.

**Mr W. James, FRICS** (Chairman of the Quantity Surveyors' Committee of the Royal Institution of Chartered Surveyors): I was very interested to hear Mr Trench's remarks on joint education, because I am a great believer in it. I would like to put one or two other points to him and ask for his views.

Education is not something which solely occurs in a class-room, school or university. There is the practical aspect of it, and to my mind there is the need for interchange between offices as well as for joint education in the school. Some of us feel that a five-year full education is rather a long time without a break and contact with practice. I wonder what Mr Trench thinks on that aspect of education.

If you are going to tackle the problem of getting rid of the casualty of labour, there has got to be some scheme between contractors so that when a man's job is coming to the end there is an arrangement with another contractor in the same area. I would like to ask, have contractors any such scheme in mind? In other words, the man is there, and you have consistently to see that he gets a follow-on job reasonably nearby.

Mr Trench had a go at quantity surveys, which I was interested to hear. He brought in the old one about American pre-planning, and no quantity surveyors there. In January when I visited the States I talked to a body called the Society of American Military Engineers, which includes architects as well as engineers among its members. When I told them the story

which goes around here, that everything is so perfectly organised that there are no problems at the final account stage of buildings in America, there was a roar of disagreement from the people who were listening. So it is not all that 'buttoned up' before an American contract starts.

As to the quantity surveyor as umpire: I would only say it is surprising how often we get called in on contracts where there is no quantity surveyor, to negotiate a settlement when a dispute has arisen. It does not usually go to arbitration, which I think is a point worth remembering.

Mr Trench emphasised the point that prefabrication is cheaper, and, I think he said, better. I question whether that is so as a general principle. I think it is so with certain items, but you want to choose very carefully the items you are going to prefabricate, because of transport factors and handling costs.

I would like to thank Mr Trench very much indeed for his paper, which I think is most interesting.

**Mr H. Lochrane** (London Master Builders' Association): I listened to Mr Trench's paper with the greatest interest and elation, for it is the first time I have heard such constructive views aired.

The only thing that worries me, as a somewhat young and ignorant member of the building trade, is that the term of 50 years gives us a rather wide- or long-term approach.

Is enough being done at the moment to create the climate for change?

It seems to me the main contractor is unable usually to co-operate with the architect in the design stage, because normally then he is not yet appointed, and he can very likely be a competitive tenderer. Is it not therefore very important to think how we can create the climate to weld the main contractor and the architect into that team which is so important to the success of the building, and its economy and quick construction?

**Mr G. B. Oddie [4]:** The word 'demarcation' has been used this evening, primarily in connection with the building trades, but surely it is equally important to apply it to ourselves.

With all respect to those who have been devoting their attention to joint training, may I suggest that they are starting to run before they can walk, so to speak. They are thinking of a method of training jointly architects and engineers and builders and the rest, whereas I suggest we really ought to be seeing first of all what skills are needed in order to produce a building, then into what categories these skills fall. When we have sorted out the answers to those questions, although there will still be an architect for some things, he will probably bear no relation to the kind of architect we think of at the moment; the same applies to the builder and surveyor and others.

Of course, it is very difficult when existing organisations have vested interests in maintaining to some extent their professional or commercial status quo, but I suggest we could profitably form a joint organisation of builders, architects, the RIBA, the NFBTE, the NFBTO, the RICS, etc. – a study group really to find out what those basic skills are. There is so much difference of opinion in the building industry as to what a building is, that there should be a certain

amount of user research before a building is planned to find out what people require from it. We tend to make too many assumptions on that.

Here again I would like to offer, with humility, a suggestion that there is now, as Mr Gibson mentioned, an organisation in being which is in fact a joint organisation for producing buildings – the class consortium – which is combining skills without any clear lines of demarcation. Would it not therefore be a profitable example for the attention of such a study group, and would not there be a number of very valuable lessons there in the kind of training which might be devised for all the participants in the building industry?

**The President:** No one has referred – I do not remember anyone referring – to a very important partner in this building adventure: that is, the client. After all, he pays, and it is his wishes that the building industry have to satisfy. It is usually the architect who has somehow to unravel this ball of wool which is the client's requirements. It is extremely difficult in some instances; personally, when I do a certain amount of university work, I know it is a major problem to try to get detailed schedules of requirements out of a university professor.

This work goes on behind the scenes. Even though I go all the way with Peter Trench that we have got to get closer together, and that there must be more co-operation, it is awfully difficult, during this negotiation stage when one is trying to thrash out what the client wants (and he does not really know) to collaborate on questions of design with the builder, especially when the client says he will have competitive tenders, and will not negotiate a contract. I am sure the negotiated contract will always have an increasing place for this form of entering into a business arrangement.

What about the client and the architect? One of the architect's main functions is to crystallise and make clear the client's intentions. This is often forgotten by other people: they do not know the amount of work done by the architect, who is trying to clear up this matter before the building starts. Not only that: the architect is often blamed for changes of plans which are brought about by a change in requirements by the client, and it puts him in a difficult position.

This is not an excuse, it is a fact.

Having said my piece, it now gives me great pleasure to put the vote of thanks to the meeting.

*The motion was carried with acclamation.*

**Mr Peter Trench,** replying to the discussion: Thank you very much indeed for the extraordinarily kind way in which you have received what must have been to some people an extremely irritating paper. I cannot imagine a van-load of builders sitting there quietly while some architect came to tell them about their future! You were really extremely kind.

May I also thank my friends Mr Donald Gibson and Mr Roger Walters for not only the way they proposed and seconded the vote of thanks, but the deep way in which they delved into everything. In the few minutes they were talking they went much deeper into this matter than I did.

If I may answer some of the points made: Mr Fisk reckoned that package deals were

symptomatic of boom conditions and saw their end in times of recession. He asked was it really that the builder wanted a larger slice of the cake? The answer to that is, Yes.

One could talk a long time, and not be believed, on the low net profits made by building companies, but it is a statistical fact, to be gleaned, if you like, from the *Financial Times* and other papers, that the net profit of building firms is about 2 per cent per annum. That is very low, and I would not like to tell you the minus figure it must be for profits made out of competitive tenders.

Mr Milstone spoke of the counter-charges of inefficiency and roguery between architects and builders, and made an interesting suggestion – that the Standard Form of Contract assumed roguery among builders: I think he is largely right.

It would be out of place for me to talk about a meeting which took place this afternoon on the Revised Form of RIBA Contract, but I hope some of those who took part heard what Mr Milstone said. With this question we are getting on to codes of ethics for builders; this is an extremely difficult subject. Looking at it realistically, we are still a long way off the time when a builder as an individual, apart from being a member of the Institute of Builders, can be brought before a disciplinary body which can take him to task for doing something naughty. It is difficult enough now to say what is naughty: if criminal, he can go to gaol anyhow, and if immoral, how immoral must it be to be naughty? But, seriously, I think the future may well see a disciplinary committee set up by builders themselves. The better building firm today is very much aware of the fact that there are a lot of black sheep in the family who are not doing them any good at all. In the next 50 years I think we shall see the builders themselves, as they have done to some extent in house building, setting up a type of registration scheme which will make sure that once in, you only stay in if you stick to the rules of the game. Making the rules will be extremely difficult, and a very long process!

Mr Hermann I thought got a little more applause than he deserved on his suggestion that by decasualisation of the industry the demarcation problems would disappear. I think honestly the two things are rather separate, although the sentiments he showed on the subject will, possibly to his surprise, be shared by many employers. There is every reason to believe, that if by decasualisation we mean a man on a Friday morning will know when he goes to work he will still be in work on Friday evening, provided he does not misbehave, such a state of affairs is not far off. If, however, he means that every man jack in the building industry can be guaranteed permanent employment, I am not so sure that that is such an easy matter; but on the other hand, in times of full employment, I cannot see that there is going to be a lot to worry about, especially when the building industry works 48.2 hours per week, as it is doing at the moment. I would think that the shortage of labour – and we are going to be very short this summer; no man will be out of a job for very long – would count for something, but I agree decasualisation is a matter to be attended to over the next 50 years.

I always like listening to Bill Allen. I am

sorry not to have been here when he gave his own paper, although I read it afterwards. He thought I gave too much time to architects and not enough to trade union problems. In my ordinary day-to-day work I give far too much time to trade union problems, and not enough to my own members' problems!

He is right: as I said, one of the greatest obstacles to future progress will be a refusal on the part of trade unions – and by gum, they have a difficult problem – to face up to the problem of demarcation and the problem of new techniques. I could, if anybody invited me to, give a long paper on that subject itself!

Mr Cleeve Barr said he agreed the profession was part of the industry, but he said not all the profession agreed. That is probably true: to get a complete majority in these days on anything is extremely difficult.

He made three points: he referred to the architect working in building firms as downtrodden and struggling and compared him to the local authority architect of 40 years ago. Some letters in the Press would seem to indicate that some of the local authority architects even of today seem to think they are downtrodden and struggling. To a certain extent this might be true. On the other hand, I give it a very short time before the first architect, if not already there, is a director of a building firm, and he will receive all the honours, pipes playing, flags waving, etc. When he is there, I doubt whether the RIBA will take away the letters after his name.

Secondly, he did not accept that it was the RIBA's fault that joint education was backward, and said builders themselves had only just started to be educated. That may be so, but when you think how long architects have been educated, it is time they did something about joint education.

Why did I exclude house building? I said I was pushed for time, and I could not deal with many subjects. I would have liked to deal with mechanisation and building techniques, and to have a smack at the future of design. I only excluded it because of time. The future of house building is extremely interesting, because unless – and I mean this seriously – there is a change in the next few years in the planning conception of where one can build (I talk from the house builder's point of view) and how much land is to be made available for building, its future is pretty bleak. As to whether house builders will be subject to a change in techniques, I am not sure if he meant management or building techniques.

On management techniques, the house builders of this country are probably in advance of the ordinary general contractor. Many house builders do very little of the work themselves, and co-ordination is itself a management technique.

If he meant building techniques, and this links with prefabrication, house building is still using craft methods and techniques, and until there is a completely new conception of design in housing, that is likely to continue.

Mr Goulden would not call himself an educationalist, and he reckoned builders were just starting to wake up. I hope, as I said earlier, I have been thought frank rather than rude: I have certainly not meant to be rude, Mr Goulden, at any meeting I have attended: it must be a natural characteristic!



It is true builders have started to wake up, but the fact that they have woken up is a fine sign, and if they have taken the initiative, good luck to them: you should try to get it back from them.

Mr Bill James spoke of joint education, and the need for interchange between offices, and a break in the five-year period to do practical work. This is very possible. The sandwich course, six months in industry and six months in a technical college, is very much in favour among builders, and is a fine way of doing training. I see no reason why that should not be extended. We must realise that in the years to come, with the school-leaving age advanced and with post-school education, it may be that the architect, when he comes out of the egg, will be 24 or 25 years old. If you do this in sandwich courses, and have breaks in the middle, some of these chaps will be really bearded when they come out.

On his point concerning arrangements for exchange of labour between contractors in the same area, this was mooted some ten years ago: quite a number of large contractors tried it out, the formula being that when Messrs Snodgrass had no job for a particular carpenter, he was passed to Smith and Son, who were on the register, and when they had no work for him he was moved on to someone else. He was more or less guaranteed employment.

The conception is a good one, and within a big building firm that happens from job to job with their key men. Between firms the difficulty is that one man's meat is another man's poison: a general foreman may say so-and-so is the finest bricklayer he has ever had and the next chap wants to kick him off the job.

I do not think decasualisation will come about that way; it is more likely to take the line of much longer notice before a man is put off a job, dependent on the length of service with a firm. This is already starting among progressive firms, and is likely to continue. It will be a long time before it is done on a national or an agreed legal basis, but many firms will adopt this form of decasualisation.

Concerning Mr James's talk with the Society of American Military Engineers about buttoning up work before it starts: I have been to the States, and I know this to be true: a lot of the stories that go

around about pre-planning in the States are mythical. I give you that, but I cannot help feeling that with *competitive* jobs in in the USA it is almost financial suicide to put jobs out to tender to contractors without sewing on the last buttons. Most of these jobs which you are talking about which are not sewn up are done on a negotiated basis.

As to prefabrication being cheaper: I did not say this. You cannot generalise, but there is no doubt that trends are showing that prefabrication is becoming cheaper. By that I mean as site costs go up, the relative costs of prefabrication to site costs change; although in very few cases today is the prefabrication of large units an economic proposition, and in house building it has been proved quite recently that prefabrication, especially mixed with traditional work, is by no means cheaper than work carried out by traditional methods.

Mr Lochrane wanted to know whether enough is being done to create the right team climate, and so on. A lot is being done: but less talk and more action is required; he has a point there.

With regard to the question of welding the main contractor and the architect and getting in at the design stage: we have to be careful about that, because I do not know of anyone, from the client down to the smallest sub-contractor, who does not want to be in at the design stage, possibly not all for the same reasons.

Without being too cynical about it, and getting back to my theme, I think that with architects working with builders in builders' offices, the contribution of the builder at the design stage will be a very real thing in the future, certainly more than at the moment. I am quite sure – and I do not mind giving my own people a kick in the teeth here – that there are builders who would like to be in at the design stage who have nothing whatsoever to contribute at the design stage, but they will have, by better training, and by your allowing architects to rise to the top of the building firm without losing their professional qualifications.

Mr Oddie spoke of demarcation. What skills? What categories? This is what I was asking about the operatives – what is required? He is, however, asking far too much when he talks about a joint organisa-

tion forming a study group to find out what basic skills are required. This is beyond the scope of part-time committee members. This is beyond the scope, in fact, of anybody who is not trained to do research into job evaluation, and user requirements.

I am sure he is right in theory, that to look at the future, one should analyse – and I think I did this – analyse the position, and then synthesise.

You, Sir (to the President), finished up by talking of the client: I am sorry to leave you till the last, but you did speak last. You know, when builders get together at some big annual dinner, someone always says, 'It would not be the same if our friends the operatives were not present', and they get the biggest clap. Architects, in the same way, always mention the client, and quite rightly. Whereas we need the goodwill of the operatives, you need the goodwill of clients.

The future client I did not deal with: I think in his inimitable way Mr Basil Spence has put a finger on a great weakness in my paper: I should have started with the future client. Is it to be the large corporation? How many private individuals are likely to be building owners of any size? What sort of proportion will the local authority and the State do of building work in the future? I thought how right he was, and how wrong I was, to leave that out.

What if a client will not negotiate? Well maybe one day I will be invited to talk about disciplining clients. It is a very easy thing for someone who can be described as a refugee from commerce to come and drop these pearls of wisdom for, so long as I do not alienate my own members, I can do this with impunity!

To end on a serious note, 'disciplining' is not the right word, but there is a management technique known as 'communication': simple to say, difficult to do. I am optimistic enough to believe many architects today are unravelling this ball of wool with a tremendous amount of success. The whole conception of the client's brief, and getting out of him what he wants, is a skilled management technique, and many architects are aware of it. May they continue to study it! Although in many cases the architect is not to blame for changes, it is on the shoulders of the wretched builder that the effects of these changes fall.

## Presentation of London Architecture Bronze Medal for 1959

At the RIBA on 21 June, The President, Mr Basil Spence (Knight-Designate), in the Chair

**The President:** It gives me great pleasure to present the London Architecture Medal to Mr Hubert Bennett, who represents the Architect's Department of the London County Council, for the Roehampton Lane scheme of high blocks. You will see at the other end of the hall photographs of the scheme. On the left hand side there you will also see an array of photographs of buildings which have been awarded this Medal in the past. I think it is a salutary thing to study these photographs, because you can see how architecture has advanced in spite

of what people say. It is worth looking at the photographs from that point of view.

It now gives me very great pleasure to present a replica of the Medal to Mr Norman Farmer, Deputy Chairman of the London County Council, as representing the building owners. This is one-third of the very successful team or partnership, because the architect is powerless without a good client.

It is now my pleasure to present a Diploma to Mr Norman Wates, who needs

no introduction to us as architects. He is the Director of Wates Ltd, the contractors for the building.

**Mr Hubert Bennett [Hon. Treasurer]:**

As Architect to the Council it is my privilege to pay tribute to all those who have played a part in the Council's Estate at Roehampton, the largest post-war housing job undertaken by the Council and one of the largest undertaken anywhere in Europe.

The subject of the medal lies between



Rochampton Lane and Richmond Park. The site had very fine natural landscape features, hence the decision to use a number of tall blocks to preserve the open park-like character of the area.

Our affection for the informal and asymmetrical is all part of the subconscious influence upon our aesthetic judgement and this natural landscape which is instinctively primitive gains immeasurably by the interplay of old and new.

In this mechanical age imagination is released, or opposition aroused, by an aggressive outlook, and the fifteen 12-storey 'point' flats in two groups and a single group of five 11-storey 'slab' blocks of maisonettes has a geometrical simplicity.

It has been said of Ferdinand de Lesseps that 'it was his genius to turn ideas into reality'. Modular co-ordination has been an idea for a long time, factory-produced concrete panels rugged in texture have only been with us a short time, but given real understanding of the issues involved, a great deal of hard work and a few headaches for the London Building Act side of my existence, I should like to pay the warmest tribute to all those members of the Department who had a part in the detailed design and execution of a scheme which was placed before the Council in July 1953.

Although the Award and the Medal is made to me personally, I wish to emphasise that responsibility extends back to my predecessor as Architect to the Council, Professor Sir Leslie Martin, and Mr Frank West, the Deputy Architect, and to the team of young designers in the Housing Division of the Architect's Department under H. J. Whitfield Lewis, and M. C. L. Powell (now Schools' Architect), Assistant Housing Architect, with Colin Lucas, as Section Leader. In the team were G. F. Bailey, John Partridge, W. G. Howell, J. A. W. Killick, S. F. Amis, M. C. D. Richmond, J. R. Galley and R. Stout.

I must of course mention Major W. V. Zinn, the Structural Engineering Consultant, Mr M. F. Rice, our Principal Quantity Surveyor, and Messrs Wakeman, Trower and Partners, Mr J. Rawlinson, the Council's Chief Engineer, for Heating and Electrical services, and Mr L. A. Huddart, the Council's Chief Officer of Parks.

Although our clients - the London County Council - sometimes think the Architect's Department is quite mad, and - after this Award puts the RIBA in the same category - the constructional divisions of the department are blessed with the most understanding of client Committees who encourage us to make our own contribution to present-day architecture.

From our selected list of contractors we were very fortunate in our builders, Messrs Wates Ltd, and it is no small tribute to them that the special site erection problems of tall structures are welcome to them and the contract brought to completion months ahead of schedule.

Once again, Mr President, may I thank you for your warm approval and the members of the Medal Committee in supporting us in our efforts.

#### Mr Norman Farmer:

It gives me, as Deputy Chairman of the Council, great pleasure to be here tonight and to accept this replica of the Royal Institute of British Architects' London

Architecture Bronze Medal for 1959 which has been awarded to the Council's Architect, Mr Hubert Bennett.

I wish to tender my public congratulations to Mr Bennett and his designers in the Housing Division.

The planned conception and the landscaping of this 100-acre site at Rochampton had generally been recognised as being an outstanding contribution to urban development. Many visitors both from this country and from abroad have been impressed, too, by the bold and dramatic design of the buildings, and the award of the 1959 Bronze Medal emphasises in a signal way the aesthetic achievement which has been accomplished. We are grateful to our architects for the fact that they have designed fine buildings and a gracious environment for some 1,900 London families, and that in so doing a new and exciting townscape has been created in the south-west approaches to the county.

While our congratulations are immediately directed to Mr Hubert Bennett, I would wish to include in my tribute, others who have played an important part in the design and erection of these buildings. I would mention first Professor Robert Matthew, on whom as Architect to the Council fell the great responsibility of creating the new Housing Division in 1951, and from him much of the impulse of the new wave of LCC architecture stemmed. Professor Sir Leslie Martin, his successor, gave further impetus to the movement, and it was during his time that the design of the Alton West Estate evolved. I would include also Mr Whitfield Lewis, until recently principal housing architect at the London County Council and now County Architect of Middlesex. I would also include his drawing office team, because on them fell the brunt of the design and supervision of this £5 million development. They are now led by Mr Kenneth Campbell. May they be encouraged to produce further designs of the calibre of the one which has won this award.

I come, finally, to the contractors, Messrs Wates Ltd, who freely and wholeheartedly contributed their great experience in collaborating with the architects in the development and realisation of this outstanding design. I have had the pleasure of knowing the Wates family and the firm for the whole of my business career, which is 40 years this year. I have seen them grow from a man and a boy to the great enterprise which they are now. I think I can describe them as private enterprise personified, and I think that it is a refreshing thought in these days of monopolies, large groups and so on. They have made great strides in the post-war years, and they have had great competition to meet, but I think it is generally accepted, certainly by the Council, that when a contract is let to Wates Ltd the Council can be assured of its being carried out with perfection.

It gives me great pleasure to be with you tonight. I am one of those awful people called a sub-contractor sometimes nominated who spends most of his profit attending site meetings and dealing generally with builders and contractors. So I am not altogether in a foreign field.

#### Mr N. E. Wates:

I think it is extremely broad-minded of the Royal Institute of British Architects to

couple the contractor with these awards. The building industry needs more prestige than it presently has, if only in order that it may attract the right kind of brains to meeting the enormous problems which the building industry confronts today. Like architecture itself, the building industry is undergoing a great deal of change and is called upon to meet very different conditions from those which any previous generations of builders have met, because as buildings get higher so they become more difficult and complex.

In regard to the designing of these tall buildings, it seems to me that the time has gone by when the architect could design without regard to the equipment with which the buildings are being constructed. More today than ever before, building, as Pharaoh found it, is very much a matter of lifting, and the lifting equipment is perhaps the most significant feature in the erection of the building. This leads to the conclusion that certainly in these very tall buildings the builder should be part of the team from the outset.

In the case of the buildings at Rochampton, we obtained the job by open tender. In my own firm, our thoughts ran along the line that precasting of the various elements of the concrete frame of the building would lead both to speed and to economy. However, the buildings had been designed as *in situ* buildings, and consequently we had to approach the architects and engineers to see whether they would agree to a conversion from *in situ* erection to precast erection. I should like to say how extremely grateful we are both to the Architect's Department of the LCC and the engineers for the sympathetic and favourable ear which they gave to our proposals. As a result, and despite some most serious and unexpected delays, we were able to complete this large contract within the contract period. This would have been impossible without the co-operation of the architects and the engineers.

This was particularly because the design was adapted to our methods of construction, and it would have been even more successful had we been able to integrate our construction methods in the design from the outset. I am sure that had this been done not only would there have been savings to the client in terms of speed and rent received at an earlier time but there would have been savings in cost as well.

I hesitate to say anything that might be considered to be critical of modern architecture in this august building and in the presence of all these experts, but I think that our buildings are mean in point of finish and costly in point of structure, and I think that by integration of the builder's know-how into the design money could be saved in the bones of the structure which could be spent on finishing, with long-term benefits to the occupiers.

In view of the system of contracting adopted, and having regard to the client's interest, this disability should be removed, and I consider that ways and means should be found whereby the contractor can be selected at the outset and his know-how made use of in the new field of tall buildings. I feel that this would be particularly satisfactory. I believe that if we are able to do this we shall get buildings constructed which have the money spent in the right places.

# Practice Notes

Edited by Charles Woodward [4]

## ARCHITECTS' REGISTRATION COUNCIL

The Annual Report of the Council for 1959-60 has been published.

The Report refers to the Architects' Benevolent Society and states that less than 10 per cent of architects on the register are recorded as subscribers to the funds of the Society. It is hoped that every architect on receipt of the Report will send a contribution to the Society at 66 Portland Place, London, W1.

The matters discussed by the Professional Purposes Committee and their views expressed during the period under review were as follows, the principles of the Code being noted at the beginning of each item.

### Principle II: Fees for negotiating sale of land or buildings

The Committee advised that when an architect is instructed by a client specifically to negotiate the sale or purchase of a property, he is entitled to charge for this service preferably on a *quantum meruit* basis, and provided that the fee is paid by his client; but if the fee is to be paid by someone other than his client, he should not undertake the negotiation.

### Principle III:

#### (i) Exhibition of Selected Architectural Work

The Committee gave it as their opinion that it was not professionally improper for an architect to permit his drawings to be displayed in an exhibition of the work of a number of selected architects invited to participate provided that (a) he did not directly or indirectly solicit to have his work so exhibited, and (b) he did not pay any part of the cost of holding such an exhibition.

#### (ii) Architects' advertisements in the lay press offering, on behalf of clients, building sites for sale.

These advertisements, of which a number have been brought to the notice of the Committee within recent months, set out the names, professional affixes and/or designations, and office addresses of the architects as the persons to whom persons interested are to apply. The Committee informed the architects concerned that such advertisements, whether inserted by themselves or their clients, or whether or not at the latter's request, are in breach of Principle III of the Code.

#### (iii) Advertising on ITV

The Committee have advised a firm of architects, who were finding difficulty in recruiting suitable staff, that there would be no objection to the firm advertising for assistants on television provided that the advertisement was (a) exclusively verbal, (b) simple and unostentatious, and (c) it appeared under a box number.

### Principle VI: Architects reporting on the work of other architects

The Committee have given it as their opinion that it is not disloyalty towards a professional colleague if an architect, acting on the instructions of a client,

reports on the work done for the same client by another architect, without informing the latter.

The architect who is asked to report may, of course, decline such a commission, or he may accept it subject to the condition that he informs the other concerned; but if he does accept it unconditionally, his first duty lies to his client, and it might well be a breach of this duty if he were to inform the other architect.

## LONDON COUNTY COUNCIL

Questions to the Chairman of the Town Planning Committee at the Council Meeting on 10 May. (i) What was the number of planning applications outstanding on 22 April 1960, and how does this figure compare with that at the beginning of the year? (ii) How many of the applications outstanding on the date mentioned had been lodged with the Council for more than (a) two months, (b) four months and (c) six months?

Reply. (i) 1,646 as compared with 1,653 on 1 January.

(ii) I regret that it is not possible without a great deal of research to give the figures required as at 22 April. Today there are with the Council 449 applications outstanding for more than two months, of which 100 have been outstanding for more than four months and 35 for more than six months.

The figures given in (i) and (ii) do not include applications delegated to the Metropolitan Borough Councils.

(i) Is it a fact that the minutes of the Town Planning Committee are regarded as confidential and not available for inspection by members of the public and, if so, under what authority?

(ii) If the answer to the foregoing is in the affirmative, will they consider whether the minutes of the Town Planning Committee and other committees of the Council (in so far as not dealing with private and confidential matters) should be made available for public inspection?

Reply. (i) There is no statutory right of inspection of minutes of the Town Planning Committee. A more convenient course for ascertaining decisions on town planning applications is to consult the statutory register.

(ii) Under a rule of the General Purposes Committee facilities for inspection of minutes can be provided where inspection would not be detrimental to the public interest. This does not apply to minutes of sub-committees.

(i) Are the decisions of (i) the chairman and (ii) the vice-chairman or an authorised member acting (in either case) with the advice of 'the Panel', presented to the Town Planning Committee for confirmation?

(ii) If not, is he satisfied that the procedure of the Council in this connection is such as to satisfy the provisions of section 4 and Part II of the First Schedule to the Town and Country Planning Act, 1947 and, if so, on what grounds?

Reply. (i) They are presented under standing

order 104(d), to the terms of which I would refer the honourable member.

(ii) I am quite satisfied that the procedure is proper having regard to all the statutory and procedural provisions in the matter, including the London Government Act, 1939, and the Council's standing orders thereunder.

## MINISTRY OF LABOUR

**Washing Facilities in Factories.** From 1 August factory owners and occupiers in Great Britain will have to include running hot and cold or warm water among the facilities for washing for workers employed by them under an Order made by the Minister of Labour today (Tuesday 21 June 1960).

This Order, the Factories Act 1959 (Commencement No. 2) Order, 1960, brings into operation on that day section 18 of the Factories Act 1959, which requires these additional facilities shall be added to the provisions of section 42 of the Factories Act 1937, which lay down that adequate washing facilities including soap and clean towels or other suitable means of cleaning or drying, shall be provided and maintained.

At the same time the Minister has laid before Parliament the Washing Facilities (running water) Exemption Regulations, 1960. These exempt until 1 August 1961, all factories employing five workers or less from the requirement to provide running water for washing for factory workers. They also empower district inspectors to grant exemptions for factories in the circumstances specified in the regulations.

Under the Draft Washing Facilities (Miscellaneous Industries) Regulations, 1960, which are also published today, orders and regulations which have been made from time to time under the Factories Act containing special provisions relating to washing facilities, but not this latest provision about running water, are brought into line with section 18 of the 1959 Act.

## AGRICULTURAL RESEARCH COUNCIL

### Experimental Farm Buildings Scheme.

On 16 February 1960 the Minister for Science announced that the Agricultural Research Council would, from a date to be announced, be prepared to make grants to farmers who were willing to take part in experimental programmes involving the testing of farm buildings and of ideas affecting farm buildings. The Council arranged that this scheme came into operation on 1 July 1960. Details and preliminary application forms can be obtained from the offices of the Council at 15 Regent Street, London, W1. An applicant whose scheme is selected in principle for the award of a grant will be required to instruct an architect or other professional man to draw up plans for the building and a detailed specification.

## THE MINISTRY'S REPORT FOR 1959

The Annual Report of the Ministry of Housing and Local Government, 1959 (HMSO 10s. 6d.) states:

'It is the Minister's policy that each proposal for a high building should be considered on its own merits, including not only the design proposed for the building

itself but the characteristics of the area in which it stands, including any other high buildings which exist or have been approved nearby; and that the standards applied to buildings in general shall apply to high buildings in the same way. Thus the same car parking and day-lighting tests are applied and the plot-ratio (that is the ratio of the aggregate floor area to the net site area) is to be the same as in lower buildings. In other words, the bulk of a high building will be distributed differently but will not be greater than that of a differently shaped building constructed for the same purpose in the same place.

'The London County Council have worked out a set of questions which they apply to a high building project and the Minister is in general agreement with this approach.' The Report lists the questions as follows:

1. Would it disrupt the pattern of existing development or obtrude on the skyline to the detriment of existing architectural groups?
2. Would it have a positive visual or civic significance?
3. Would the site be large enough to permit a base of lower buildings or open space?
4. Would it overshadow adjoining areas and stifle good development there?
5. Would it be better than a lower building and relate satisfactorily to other buildings nearby?
6. Would its design and materials be of high quality?
7. Would it relate satisfactorily to open spaces and the Thames?
8. Would its illumination at night detract from London's night scene?

The Report adds:

'Special contributions naturally arise in particular cases. In some cases the problems posed can be satisfactorily resolved only if comprehensive development of the area is decided upon.'

**Planning Appeals.** The number of appeals, excluding advertisement appeals, made to the Minister during the year was 8,857 – much the highest total so far – compared with 7,499 in 1958. The figures have risen each year since 1952 and the intake has doubled over the past six years. The percentage of appeals allowed during the year was 30.6, compared with 32.2 in 1958.

## LAW CASE

**Lemas v. Kennedy Leigh Developments Ltd.** Damage by tree roots. The plaintiff built his house in 1957 and it was completed in June 1958. The flank wall of the house was 8 ft. 3 ins. from the boundary between the plaintiff's and the defendants' property.

In November 1957 the defendants planted 20 Lombardy poplars about 6 ft. from the boundary, the soil being heavy clay.

The plaintiff brought an action for an injunction and damages alleging that his house and drains were endangered by the proximity of the tree roots to his house. The writ was issued on 7 July 1959, and it was conceded that no damage to the plaintiff's property had then occurred. The farthest progression of any root was about

6 ft. within the plaintiff's property. No other penetration was proved or was sought to be proved, so that no likelihood of immediate damage arose.

In dismissing the action with costs his Lordship said that he was unable to hold that the plaintiff had proved that the trees constituted a serious danger to the stability of his property and that being so, no relief on nuisance could be granted. (*The Estates Gazette*, 4 June 1960.)

## NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY

The National Joint Council has adopted the following alterations to its National Working Rules which will become operative on and from Monday 3 October 1960.

### '1. Normal Working Hours

Subject to the provision of para. 2 below the normal working hours shall be 44 per week, arranged as follows:

Mondays to Fridays	
(inclusive)	8 hours per day
Saturdays	4 hours

By arrangement between the employer and the operatives on a site or job or in a shop the normal weekly hours may be worked on that job or in that shop in five days, in which case the daily hours, to be worked at plain time rates, shall be:

Mondays to Thursdays	
(inclusive)	9 hours per day
Fridays	8 hours

The Employer shall give immediate notice in writing of such arrangement to the Local Joint Committee.

### 2. Winter Period

The "Winter Period" shall normally be the six weeks before and the six weeks immediately following Christmas, but taking into account differences in hours of daylight and other conditions affecting local working hours, Regional Joint Committees are empowered

- (a) to approve for any locality a different "Winter Period" (not restricted to 12 weeks' duration);
- (b) to adjust where necessary to local dinner interval during the two weeks immediately before and the two weeks immediately following the said "Winter Period".

The working hours during the "Winter Period" shall be as follows:

- (i) Where artificial light can reasonably be supplied as in para. 1 above.
- (ii) Where artificial light cannot reasonably be supplied and subject to the option in (iii) below – 44 hours per week, with meal interval of  $\frac{1}{2}$  hour.
- (iii) Where artificial light cannot reasonably be supplied and where the majority of the operatives on the job so request, the Employer shall be at liberty to arrange the following:

41 $\frac{1}{2}$  hours per week (with meal interval of 1 hour).

Overtime shall be paid for at the following rates:

#### (i) 5 $\frac{1}{2}$ -day week

*Mondays to Fridays*

First two hours – time-and-a-quarter;  
second two hours – time-and-a-half;

afterwards, until starting time next morning – double time.

#### *Saturdays and Sundays*

Time worked between normal finishing time on Saturday and 4 p.m. – time-and-a-half; afterwards until normal starting time on Monday morning – double time.

#### (ii) 5-day week

##### *Mondays to Fridays*

First hour – time-and-a-quarter; next two hours – time-and-a-half; afterwards, until starting time next morning – double time.

##### *Saturdays and Sundays*

First two hours on Saturday morning – time-and-a-quarter; thereafter, until 4 p.m. – time-and-a-half; from 4 p.m. on Saturday until normal starting time on Monday morning – double time.'

#### *Watchmen*

'The night shift shall be the period between normal finishing time on the job or in the shop and starting time next morning.

At weekends a relief watchman shall be employed for day-time watching. Where Saturday morning is worked the relief watchman shall be paid half shift for the period between finishing time and 6 p.m. Where Saturday morning is not worked, and on Sunday, full shift shall be paid on each day for the time between 8 a.m. and 6 p.m. Where it is necessary to work over-time on a Saturday, mutually agreed arrangements shall be made.'

# Correspondence

## Ideal Home Small House Competition

*The Editor, RIBA JOURNAL*

Dear Sir, – Recently, as a prizewinner, I attended a meeting at which the progress of the Ideal Home Small House Competition was discussed. This meeting turned my doubts about the scheme into dismay. The scheme is not without its success. *Ideal Home Magazine* has gained enormous publicity; some architects have gained fees from an unexpected market; some people building houses have had, we hope, better value for their money than they might otherwise have enjoyed. For myself I am grateful for the absence of scenes of violence on the backs of cornflake packets. But the scheme is sponsored by the Institute, which is a Royal Society devoted to the interests of a great art. Has the cause of architecture been helped by this scheme? I believe it to have been damaged.

There can be no disagreement that England is being ruined at an alarming rate by the spread of badly designed housing schemes and that it is the duty of all responsible architects and of the Institute to attempt some remedy. How does the scheme appear when examined against this crisis?

The designs themselves, though pleasant, are not revolutionary, and show little more than can be found in the better housing schemes by local authorities and speculative builders. Among recent individual houses that have been built in England we can easily find 30 of far greater architectural interest.

But the houses themselves are not very



important. If the houses of the worst speculative estates were changed to designs selected from the prize winning 30, the result would be almost as horrifying for the reason that it is not units but the arrangement of the units that form the true architectural character of a housing estate. It is clear from both historical and modern examples that it is only when a skilful architect has complete control over the whole scheme that first class work is produced, and under the present arrangements of the Small House Competition there is no such control. In practice the Scheme allows speculators to buy designs without even meeting the architects. It is as useless to apply an architect's façade to a speculative housing estate as it is to a Piccadilly office block.

The architect must control the design of all parts of a building project. The Institute recognises this principle; when considering the architect's position in the design of motorways, town development schemes and many other matters, it is exerting its influence to see that architects are given the authority they need to exercise their skill. Yet in this Small House Scheme, sponsored by the RIBA itself, the principle is compromised and the Institute has weakened the position and authority of its members. Should there be another competition it is to be hoped that the conditions will be revised with this principle in mind, and that the successful architects will be able to design the whole of a housing estate.

Yours faithfully,  
DENIS SERJEANT [4]

#### The Manchester Conference

Dear Sir, - Although many excellent suggestions were heard at the Manchester Conference as to how future traffic problems might be tackled now by the comprehensive planning of redevelopment in our cities, it is to be regretted that no positive action is to be taken by the RIBA.

I had hoped that the architect would give a lead in this vital and urgent matter by a resolution at the conference that the RIBA would forthwith call together for immediate action individuals and representatives from all bodies concerned with planning and traffic - not forgetting the police and insurance companies.

As it is, we are left to hope that one of the Ministries will in due course do something on these lines but rather in the form of an enquiry. Is it too much to hope that the RIBA might still make the first move and so give that essential lead which is being sought to deal with one of our most urgent national problems.

Yours faithfully,  
N. HENZELL-ASCROFT [L]

#### The Department Store

Sir, - I read with interest in your June issue the paper by Mr D. Lasdun on the departmental store.

I feel that you, and perhaps Mr Lasdun, may like to know that at the Annual Meeting of this Association held recently at County Hall, the following resolution was passed.

*This Association urges H.M. Government to discourage, wherever possible, the building of windowless departmental stores, which forces assistants to spend their working hours and shoppers to make their purchases in artificial light.*

During the discussion on the resolution it became obvious that our members in many parts of the country, dislike the working and shopping conditions which result from what is, in England, a new development in departmental store building.

Yours faithfully,  
HELEN I. WHITTICK  
Chairman Executive Committee,  
National Women Citizens' Association

#### The New Format of the Journal

Dear Sir, - It is indeed gratifying to see that my suggestion to mail the JOURNAL flat has at long last come into effect. It takes approximately three to four weeks for the JOURNAL to reach us in Western Canada and many overseas architects will agree that it used to arrive in the old wrapper somewhat like a clock spring and almost impossible to read.

Regarding the new format of the JOURNAL, I would like to take exception to Mr Brandon-Jones's remarks in which he advocates a return to the drab, badge cover of the 1930's. The new look may be far from perfect but it is certainly an improvement in the right direction. Surely a magazine cover is not only the key to the issue, but should beckon and invite one to enter, explore and enjoy the contents.

Yours very truly,  
D. W. LICHTENSTEIGER [F]

#### Comparison of Professional Incomes

Dear Sir, - In reply to Mr J. C. Parkin's letter (June JOURNAL), concerning your article 'Comparisons of Professional Incomes' where he refers to Canadian salaries, I should like to make the following comments.

Both he and the *Daily Express* have tended to exaggerate the architect's salary. While it is improbable that a practising architect would receive a similar wage to a plasterer, it is possible for an employed architect to achieve this. The situation of course changes with the amount of experience gained, but usually in the case of immigrant architects the salary expected on landing would be similar or below that of the plasterer.

Figures, showing salaries and wages, substantiating these facts were published in *The Canadian Architect*, September 1959.

Yours faithfully,  
D. WARRILOW [4]

#### The Architect's Job

Dear Sir, - I am just about sick and tired of reading of lectures, conversations, papers being read, reports being made on who is to do the Architect's job.

They all want to be the Architect! The civil engineer, the structural engineer, the heating engineer, the concrete engineer, the quantity surveyor, the building surveyor, the plumber, the electrician and Uncle Tom Cobley and all and, rolled into one, they are - the contractor.

Why is the profession being 'fifth columned' into believing that it is incompetent to be the building controller?

It is the only profession capable of incorporating sufficient knowledge of all these trades to co-ordinate and control them into one coherent result.

What the devil can the ventilating engineer do about a tanked basement detail? What the devil can the quantity surveyor

do about the soil bearing figures? What in hades can the contractor do about balancing the design for heating and ventilating? Let the trades stop bull-doing, bamboozling, reviling, criticising, cajoling and envying the Architect and get on with their own jobs.

Indeed, if the contractors put their own houses in order we might get less criticism and scorn for our buildings, criticism and scorn which is always blamed on the Architect.

Let the contractor stick to his own job and the Architect will stick to his to the mutual satisfaction of the client, because, after all, it is only the client that counts, and if the contractor wants to swallow the Architect into his greedy maw, together with all the other trades that he has already swallowed, then the 'packaged job' is secure for him on his terms and we will get 'building Z80d' completed by - general contractors.

Lay off Contractors! The Architect has a Royal Institute which has produced the lowest paid profession for one of the hardest of all qualifications, and which allows any uneducated Tom, Dick and Harry to try and kick him to death.

The fault with the Architect is that he will try to be a Gentleman in a Teddy Boy's world and everyone is taking advantage of the fact. So - Architects - this is fighting talk - take off your bow-tie, come from behind your drawing boards, stop talking to the contractors as if you were eating grapes with a knitting needle and drive the invaders back to the benches where they belong and where, indeed, they are so sadly missed.

Yours faithfully,  
G. H. PARRY [4]

#### Building Societies - Modern Architecture

Sir, - In your issue of May last, the 'case' for the Building Societies as put by Mr F. M. Osborn, FCI, for the Building Societies Association, makes very interesting reading but tells us nothing new about the difficulties of approval of architect-designed houses.

There are, however, two points of interest in Mr Osborn's comments - which are:

*Firstly*, - his statement - 'that from the Building Society's point of view this is not a major problem'.

*Secondly*, his request for suggestions for bringing architects and Building Societies closer together.

The former statement must be found by many hundreds of clients and architects to be somewhat 'startling' in view of their known difficulties of getting modern designed houses accepted.

A suggestion for bringing architects and Societies together would be - what I have so often reiterated over the years - 'to have more fully qualified architects elected to the boards of directors', as thereby they could press the many advantages of better designed and supervised buildings, better security for the Societies, to say nothing of providing jobs for many architects whose practices are largely dependent on such work.

There are over 700 Building Societies in the country and less than a half of one per cent of their directors are architects.

Yours faithfully,  
SIDNEY LOWETH [F]



t in  
unc-  
ng?  
am-  
and  
their

own  
ism  
and  
the

job  
the  
use,  
ints,  
the  
ther  
eady  
is  
get  
eral

has  
the  
the  
hich  
and

t he  
oy's  
ge of  
nting  
from  
king  
ating  
e the  
they  
e so

Y [4]

re

case'  
Mr  
lding  
erest-  
about  
itect-

terest  
e:

n the  
his is

s for  
ilding

nd by  
cts to  
their  
odern

s and  
have  
to the  
could  
better  
better  
ing of  
whose  
such

ies in  
ne per

H [7]

r 1980

RIBA J

## Book Reviews

### The British New Towns Policy.

By Lloyd Rodwin. 10 in. 266 pp., illus. Cambridge, Mass.: Harvard University Press. London: Oxford U.P. 1956. £3.

Ten years after the Labour Government's official adoption of the New Towns policy – the building of planned communities to decentralise Great Britain's large towns, in particular London – Mr Lloyd Rodwin's study is an eminently able survey of the successes achieved, the problems thrown up and the prospects for long-term development.

The present position is a phase in history when new ideas are flooding the backward areas of Asia, Africa and the Middle East, and when technological progress allows their translation into reality at a hitherto unprecedented rate. In Western Europe also there is a tremendous surge forward after two world wars; and, with the rise in standards of living and real incomes, a genuine desire to wipe out the ill-effects of the too rapid industrialisation and indifference to working-class housing of the 19th century. The moment is ripe for planning experiments on a large scale.

At this period when the sheer immensity of the long-term urban renewal programme is beginning to be recognised, it is very useful to have available a commentary on the methods of organisation behind the New Towns projects. On the face of it, New Towns and urban renewal appear very different propositions, but in point of fact they are related stages in the 20th-century evolution of industrialised Britain. One of the major problems of urban renewal which needs investigating is what is the best kind of organisation needed to undertake urban renewal in its broadest sense. The value of Mr Lloyd Rodwin's book is that it is a commentary by an outsider on the methods used in the establishment of the British New Towns.

Mr Rodwin describes his scrutiny of the evolution of Britain's New Towns as 'a case study of an important planning experiment'. He disclaims its being 'a comprehensive history of New Towns' or 'a definitive description of their operating characteristics'. He calls it 'a retrospective evaluation of the problems of British New Towns, problems associated with the ideas as originally formulated, problems encountered in their operating experience, problems which seem destined to emerge in their future development'. He examines Ebenezer Howard's original Garden City ideas with Letchworth and Welwyn, the New Towns Act of 1946, the procedure and machinery devised for building New Towns, their financing, the rate of building; gives some good illustrations of master plans, neighbourhoods and town centres; probes the complex tasks which confronted the pioneers, the professional planners and the miscellaneous army of experts in the post-war period of financial stringency and economic restrictions; and finally estimates the accomplishments and significance of the New Towns. In a highly interesting appendix he analyses the deficiencies in the present training of planners; he stresses the argument that there is an urgent need for them not only to be equipped with their 'technical tools', but also to be reasonably familiar with political, economic and social

questions and to acquire a healthier respect for research.

Throughout his survey Mr Rodwin is fully aware of the attitude of many officials who consider New Town corporations as cuckoos in the nests of local authorities, and will spend an inordinate amount of time and energy in sniping the new corporations' administrative efforts. The issues of large-scale development costs, the grants from the Ministry of Town and Country Planning, rents, rising building costs, New Town design, architectural shortcomings, the opposition of entrenched interests in the 'invaded' areas, administrative entanglements, all are questions bristling with difficulties – none, however, insoluble.

It may seem to some readers that Mr Rodwin focuses too closely on the debit side of the question, with undue emphasis on the problems and shortcomings. When discussing national policy issues, he writes: 'Unfortunately there were no comprehensive long-term national physical development plans. Nor were any undertaken. Neither was there any long-term capital expenditure plan geared to national and regional physical development policies. As a result one wonders how much chance and pressures influenced the allocations that were made; whether policies and programmes might have been undertaken that were incompatible with other commitments; indeed, whether the wrong number of New Towns may have been started in the wrong places at the wrong time.' These are strong words; but we must remember that any new national policy worth its salt has to stand up to public and, what is more important, to informed professional criticism. Ultimately the New Towns' claim to justification will rest on their capacity to compete with the older-established communities and, in our essentially industrialised island, to offer a pattern of living which balances the urban and the rural. Ebenezer Howard's ideal of the balanced city must still be the goal of the present generation of planners. They cannot succeed unless they regard the mastering of their problems as an integral part of the towns' growth.

D. RIGBY CHILDS [A]



### Review of the Report of the Committee of the Royal Architectural Institute of Canada inquiring into the Design of the Residential Environment

This comparatively short report is one of the most concentrated your reviewer has read. In some 200 concise paragraphs it covers the whole of the Canadian housing scene in a series of statements and conclusions; the latter in the form of recommendations. These recommendations amount to a housing policy, in a context very different from our own. The problem is somewhat similar, but the solution has so far eluded the eye of government. The

architects have stepped in to point a direction which, however broadly stated, provides a solidly constructive programme. It appears not to invite a vast system of government subsidy, but rather to suggest an over-riding system of controls which would ensure consistency as opposed to standardisation; advice and guidance rather than bureaucratic direction.

The presentation of this document relies mainly upon text. There are a few isotypes and some pertinent schedules, but no plans or diagrams. The object is to impress a nation with the need for a basic aim, which might possibly result later in more detailed manuals, but which at the present is devoted to calling Canada's attention to the need for an overall view; to the end that housing can be sociologically well distributed, both geographically and within the domestic environment.

In reading the first pages of the report a feeling is engendered that one has heard all this before. But the further the report proceeds the clearer is the conviction that Canada has, first, a housing problem of as great a proportion, relatively, as was our own in 1945, and moreover that this problem needs a Canadian solution.

One-third of the urban community of Canada is involved. This section has received a terrifying helping of grant-aided post-war housing on the most up-to-date lines: bungalows for one-level working, detached units for privacy, open plans for modernity, and three-bedroom accommodation for average demand. This imposition by the speculator, with government grants for encouragement, has resulted in bungalows for sameness, detached units for unneighbourliness, open plans for inconvenient living, and three-bedroom accommodation for unimaginative planning. The people who, throughout Canada, have responded to the questions asked as to the success of post-war housing provision have answered with an 'aesthetic despair' which the RAIC has pin-pointed, and to which it has given expression in this admirable and enterprising report.

The RAIC suggests a remedy under the following headings:

#### Dwelling design:

1. That permits for dwellings at municipal level should require full visual exhibit.
2. That Federal and lending authorities should insist upon quality and variety in accommodation.

#### Site selection and community planning:

1. That generally there should be a co-ordination of Federal development policies and the preparation of regional plans.
2. That local chapters should offer sketches for layout of public sites in new neighbourhoods.
3. That cities should be given powers to buy land.

In addition there are recommendations for the encouragement of public awareness of the natural heritage they possess and the urban heritage that must be left behind.

Wherever support is needed for such enterprise it should be given and it is to be hoped that the RIBA will not be slow, when the opportunity arises, to recognise this positive move on the part of the RAIC.

H. A. N. BROCKMAN [L]

## Diary of Events

SATURDAY 30 JULY TO WEDNESDAY 31 AUGUST inclusive. RIBA Reference Library closed. Loan Library open 12 noon - 2 p.m., Saturdays 12 noon - 1 p.m.

MONDAY 29 AUGUST TO SATURDAY 3 SEPTEMBER inclusive. Members' Bar closed.

MONDAY 5 SEPTEMBER and TUESDAY 6 SEPTEMBER, 5.30 p.m. The Stainless Steel Manufacturers' Association. 'Developments in the Architectural Uses of Stainless Steel', by Professor George E. Danforth.

## Notes and Notices

### NOTICES

**Cessation of Membership.** Under the terms of Bye-law 21, the following have ceased to be members of the Royal Institute: *As Fellows:* Richard Horron Davies, William Edwin Haslock; *As Associates:* Anthony Cecil Abbott, James Cecil Lees Bodington Bailey, Lawrence Bentley, Robert Henry Boal, Henry Kenneth Brown, Brian Thomas Brownlee, Brian Clemons Cassidy, Liam Cassidy, John Clark, Robert Leslie Clark, Norman Dick, Reginald John Foxton, Ronald Hubert John Geary, George Kilpatrick Gibson, Alexander Murray Graham, James Frank Williamson Hendry, George Cecil Hough, John Robert Houseman, Szczepan Marian Kowalski, James Alan Large, Graham Everard Lewis, Gordon Alexander Lonie, Alan Mather, James Symmers Neish, Dermot Eugene O'Connell, Miss Barbara Mary Reeves Palmer, Clifford Haigh Paull, Kenneth Peers, Thomas John Priestley, Mrs Elizabeth Weston Rice, Haworth Owen Roberts, Rowland Archie Seaton, Mrs Alison Shepherd, Christopher Jack Sonthin, Sir Philip Stott, Bart., Mrs Mary Elizabeth Taylor, James Alexander Wilson, John Craven Wilson, Leonard John Buckley Woolley; *As Licentiatees:* Sidney Gerald Bailey, John Francis Anthony Cavanagh, William Wrigley Diggle, James Dobbie, Robert Somerville Ellis, Bernard George Gibson, Sydney Howard Jones, Douglas Malcolm Napier Mackintosh, Solomon Roy Northmore, Stanley George Scratchley, Thomas Shepard, Cecil Mounsey Thompson, John Worricker.

**Election Void.** Under the provisions of Bye-law 17 the election as Associate of the following has been declared void: Peter Kingston Powell.

**The RIBA Appointments Department.** Members and Students of the RIBA and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

Finch: G. L.  
Firmen: David  
Fortune: D. E.  
Freeman: P. B.  
Fromings: A. B.  
Fry: G. G.  
Gallagher: N. V.  
George: Barry  
Gibbons: R. J.  
Gothard: Harold  
Goulding: M. C.  
Graham: Joseph  
Hadland: C. K.  
Hadley: A. H.  
Haenlein: H. W.  
Hamilton: Harold  
Harding: A. L.  
Haria: A. K.  
Harper: D. G.  
Hawkes: D. U.  
Hawkesworth: Rex  
Hawthorn: Terence  
Heaps: P. T.  
Hellyer: P. C.  
Henning: M. C. C.  
Henningham: J. D.  
Henry: H. J. B.  
Hesketh: John  
Higgins: A. N.  
Hilton: Geoffrey  
Hiscock: N. L.  
Hodgson: J. E.  
Holmes: J. T.  
Homfray: D. F.  
Hon: S. B.  
Houlton: B. R.  
Howe: W. F.  
Hyde: J. M.  
Jackson: C. C.  
James: A. J.  
Jarman: Thomas  
Jarvis: G. E. C.  
Jaworska-Niemczyk: (Mrs) M. E.  
Jenkin: W. T.  
Johnson: D. G.  
Jones: M. A.  
Keenan: Joseph  
Khanji: Shauki  
King: D. M.  
Kwan: S. C.  
Lancaster: J. M. A.  
Laverick: H. G.  
Leaver: William  
Lightbound: A. J.  
Linder: J. D.  
Lindley: M. A.  
Lloyd: C. C. C.  
Lockwood: K. R.  
Loftis: Michael  
Lomas: G. H.  
Macdonald: M. S.  
Macilwraith: W. L.  
McKechnie: I. J.  
Martin: R. P.  
Michael: Bryan  
Miller: John  
Mitchell: W. M.  
Morgan: Edward  
Mulholland: D. M.  
Mulvagh: G. Y.  
Murdoch: J. E.  
Murphy: J. N.  
Mylo: (Miss) A. N.  
Nettleton: I. R.  
Newall: M. M.  
Norris: D. J.  
O'Flynn: D. A.  
Palmer: D. K.  
Parr: (Miss) M. A.  
Payne: C. A.  
Payne: R. J.  
Pearson: David  
Philpott: J. H.  
Pitfield: F. P.  
Potts: J. A.  
Purssord: A. D.  
Quirk: K. F. A.  
Rawnsley: F. C.  
Redfern: R. E.  
Reid: N. J.  
Rickman: J. W.  
Risbey: D. G.  
Roberts: D. J.  
Roberts: Glyn  
Rourke: H. H.  
Rourke: Michael  
Rowan: James  
Saint: A. K.  
Sami: H. S.  
Saunders: J. L.  
Scott: D. E.  
Shelley: A. W.  
Simon: D. F.  
Skinner: D. F.  
Smith: D. B.  
Smith: D. M.  
Smith: P. M.  
Spencer: Howard  
Sturgess: R. W.  
Szymaniak: J. W.  
Tasker: N. H. F.  
Thompson: W. A.  
Till: F. F.  
Tokelove: B. W.  
Trodd: E. W.  
Turnbull: B. C.  
Turner: P. A.  
Turpin: Robert  
Walden: David  
Ward: D. J.  
Waterhouse: D. M.  
White: J. G.  
Williams: D. G. P.  
Williams: D. M.  
Wisden: E. F.  
Wood: G. R.  
Woods: M. M.  
Wright: D. J.

## Board of Architectural Education

**The RIBA Intermediate Examination. May 1960.** The RIBA Intermediate Examination was held in London, Plymouth, Manchester, Leeds, Newcastle upon Tyne, Edinburgh and Belfast from the 6 to 12 May 1960.

Of the 471 candidates examined, 163 passed and 308 were relegated. The successful candidates are as follows:

Abbott: L. A.  
Ahern: W. P.  
Alexander: B. G.  
Allan: J. A. G.

Allin: R. H.  
Andre: J. G.  
Ayres: Charles  
Ball: P. W.

Barnes: John  
Beeson: Stanley  
Bell: T. J.  
Benny: C. R. B.  
Bond: B. W.  
Brannigan: Charles  
Breeze: M. J.  
Burge: R. J.  
Butterworth: Arthur  
Butterworth: Keith  
Cameron: R. I.  
Cawley: Malcolm  
Chandler: B. H.

Chandler: J. H.  
Cheesman: (Miss) W. A.  
Clarke: R. M.  
Coleman: J. W.  
Cooke: M. C.  
Crabtree: B. K.  
Crawford: D. G.  
Curl: J. S.  
Curtis: D. J.  
Cuthbert: J. P.  
De Sousa: J. R. R.  
Donnell: T. J. S.  
Easter: L. F.

## Competitions

**Note.** An applicant for the conditions of a competition must state his registration number.

**Harlow Development Corporation: Competition for Houses and Flats.** Last day for submitting designs: 6 March 1961. Last day for questions: 1 September 1960. Full particulars were published in the JOURNAL for July, page 334.



**All-Gas House Competition.** Last day for submitting designs: 26 September 1960. Full particulars were published in the JOURNAL for July, page 334.

**Exhibition Stand: The National Federation of Clay Industries.** Last day for submitting designs: noon on Friday 21 October 1960. Full particulars were published in the JOURNAL for July, page 334.

**New County Offices at Newtown St Boswells.** Last day for submitting designs: 31 October 1960. Full particulars were published in the JOURNAL for May, page 245.

The Westminster City Council intend to promote an architectural competition for redevelopment for housing purposes of a site bounded by Vauxhall Bridge Road, Churton Street, Tachbrook Street and Rampayne Street, having a total area of about 13 acres.

Assessor: Mr Philip Powell, OBE, AADIPL [F]. Particulars will be published as soon as available.

**International Competition for Library at Trinity College, Dublin.** Last day for registration: 31 August 1960. Last day for questions: 30 September 1960. Last day for submitting designs: 5.00 p.m. on 1 March 1961. Full particulars were published in the JOURNAL for July, page 334.

## COMPETITION RESULT

**Dumbarton: Central Area Redevelopment**

1. (£1,200) John Rae [A], Derek Preston, ANZIA, Stephen Garner [A] and Walter Strebel.
2. (£900) Graham Law [A] and James Dunbar-Nasmith [A].
3. (£500) Robert, W. K. C. Rogerson [A].

## Allied Societies

### Changes of Officers and Addresses

**Birmingham and Five Counties Architectural Association.** President, A. H. Gardner [F].

**Devon and Cornwall Society of Architects.** Plymouth Branch. Chairman, D. C. H. McDonald, TD [A].

**North Wales Architectural Society.** President, H. A. Clark [F].

**South Eastern Society of Architects.** President, J. E. A. Brownrigg [A]. Hon. General Secretary, R. F. Alner [L], Dominion House, 37A High Street, Kingston-upon-Thames, Surrey. **Canterbury District Chapter.** Chairman, J. A. Clay [A]. **Croydon District Chapter.** Chairman, N. A. Royce [F]. **Maldstone Chapter.** Hon. Secretary, D. R. Gosby [A], Phoenix Cottage, Red Hill, Watlingtonbury, Kent.

**West Yorkshire Society of Architects.** Harrogate Branch. Chairman, R. S. Mortimer [A].

**Royal Australian Institute of Architects.** Queensland Chapter. President, T. B. F.

**Gargett [F].** Hon. Secretary, J. C. Irwin, OBE, ED [F], 226 Melbourne Street, North Adelaide, South Australia. Secretary, R. S. Greig, London Assurance House, 20 Bridge Street, Sydney, New South Wales, Australia.

**Architectural Institute of British Columbia.** President, W. G. Leithead, BARCH, 355 Burrard Street, Vancouver 1, BC, Canada.

**Royal Architectural Institute of Canada.** President, Harland Steele, Messrs Page and Steele, 72 St Clair Avenue West, Toronto, Ontario, Canada.

## General Notes

**Lecture at the RIBA.** The Stainless Steel Manufacturers' Association have invited an American architect, Professor George Edson Danforth to visit this country and lecture on 'Developments in the Architectural Uses of Stainless Steel'. By courtesy of the President and Council RIBA, the lecture will be given at 66 Portland Place on 5 September, and repeated on 6 September, at 5.30 p.m.

Tickets are obtainable from: The Stainless Steel Manufacturers' Association, c/o M. G. Draco, Esq., 20 Albert Embankment, London, SE11.

An exhibition, brought over from the USA, will be on view from 2.30–5 p.m. on 5 September, and 10.30 a.m.–5 p.m. on 6 September.

Professor Danforth is a leading authority on curtain walling. He has worked closely with Mies van der Rohe, whom he succeeded as Professor and Director of the Department of Architecture at the Illinois Institute of Technology.

**The Institute of Advanced Architectural Studies, York.** The Autumn programme of the Institute of Advanced Architectural Studies includes two new subjects, and two repeat courses. The first four courses are:

**5–9 September 1960:** Modern Techniques in Concrete Construction, held in conjunction with the Cement and Concrete Association, and including demonstrations.

**9–13 September:** Conference on the Architecture of New Theatres – a new subject.

**29 September – 4 October:** Course on Colour in Architecture. This new course is intended to correlate existing knowledge and opinions, and to suggest new approaches to the problem of using colour constructively in architecture.

**7–11 October:** Course on Architectural Project Management. The RIBA Practice Committee has collaborated with the Institute in the syllabus and selection of lecturers.

The fee for each course is six guineas. Pamphlets giving full particulars are obtainable from Mr J. P. West-Taylor, MA, The Secretary, The Institute of Advanced Architectural Studies, Micklegate, York.

**Cape Provincial Institute of Architects.** President, S. H. Todd [F]. Secretary, Mrs D. F. Shipley, Natal Building Society Building, Greenmarket Square, Cape Town, South Africa.

**East Africa Institute of Architects.** Uganda Chapter. Chairman, John Falconer [A].

**Natal Provincial Institute of Architects.** President, Alan Woodrow [A].

**Transvaal Provincial Institute of Architects.** Secretary, Mrs W. Coford, 60 Biccard Street, Braamfontein, Johannesburg, South Africa.

**University of Toronto, School of Architecture.** Applications are invited for the position of *Head of the Division of Town and Regional Planning* to succeed Professor Gordon Stephenson, BARCH(Liv.), MCP (MIT), MRAIC, MTPI, AILA [F]. Suitably qualified candidates should write in the first instance to Dr T. Howarth [F], Director of the School, from whom detailed information is available, enclosing a curriculum vitae and giving the names of three referees. Special mention should be made of any qualifications and experience in Landscape Architecture. Applications should be submitted no later than 30 August 1960: duties to commence in January 1961.

**RAIC Scholarship.** The Royal Architectural Institute of Canada College of Fellows has awarded a scholarship of \$2,500 to Mr Jean Garreau, of Montreal. Mr Garreau, who is 28, graduated with Honours in Architecture from Ecole des Beaux Arts, Montreal, in 1957. At that time he won the RAIC Medal for the most outstanding student in the final year.

He proposes to use his scholarship to travel in Western Europe where he will study public housing with respect to siting, planning, implementation and building techniques.

**Alexander Thomson Travelling Studentship.** The Council of the Glasgow Institute of Architects, as Trustees for the Alexander Thomson Travelling Studentship, are offering a prize of £150 for this year's competition.

The competition is open to all members of the architectural profession and there is no age limit. The successful competitor will be required, within one year of the award, to visit the Mediterranean area and submit a report showing evidence of first hand study of ancient classic architecture.

Entrants are invited to submit to the Secretary of The Glasgow Institute of Architects, 188 St Vincent Street, Glasgow, by 31 October 1960, memoranda setting forth their proposals of the work they would like to carry out on such a visit. Entrants will be interviewed by the assessors who will select the competitor whom they consider most worthy of the award, but the assessors may withhold the award if, in their opinion, no one is worthy of it. The prize will be paid in two instalments, £100

on the award and £50 on submission of a satisfactory report.

**ARCUK Maintenance Scholarships for Special Studies in Architecture.** The Architects' Registration Council of the United Kingdom will provide scholarships and maintenance grants to selected students in architecture of British nationality who have yet, in order to complete their qualification for registration, to take their examination in Professional Practice and Practical Experience having passed in all other sections of their final examination, and whose means appear to the Council to be insufficient to pursue special and approved studies in architecture.

Grants will be available only for subjects definitely related to the syllabuses of the various final examinations qualifying for registration under the Acts. Candidates must submit their programmes of study in detail. In the case of a candidate at one of the Schools of Architecture whose final examination is recognised under the Acts, the programme of studies must be countersigned as approved by the Head of the School of Architecture. In the case of a candidate qualifying by means of the Final or Special Final examinations of the Royal Institute of British Architects, the programme of studies must be countersigned by a registered architect. Grants will be tenable at an approved teaching or research Institution.

A grant may consist of up to £800, with in addition approved fees, normally for one year, renewable for a second year on the submission and approval of another application.

In the first instance applications in accordance with the above regulations must be submitted to the Architects' Registration Council of the United Kingdom, 68 Portland Place, London, W1, by 1 September 1960, and thereafter on the 1 September annually, so long as this scheme shall be in operation.

**The Town Planning Institute.** The Council of The Town Planning Institute has elected Mr Rowland Nicholas, CBE as President of the Institute for the Session 1960-61. Mr Nicholas, who is City Surveyor and Planning Officer, Manchester, will take office in November next on the expiration of the term of office of Professor J. S. Allen [F].

Mr Rowland Nicholas has been City Surveyor and Planning Officer at Manchester since 1940 and prior to taking this appointment, was City Engineer and Surveyor of Sheffield.

Mr Nicholas is the author of the *City of Manchester Plan 1945* and of the *Manchester Regional Plan*, the latter report covering the redevelopment of a large area contiguous to the City. In collaboration with Mr M. J. Hellier, then Planning Officer to the Advisory Committee, he produced the Advisory Plan for South Lancashire and North Cheshire.

In post-war years Mr Nicholas has been responsible for recasting the planning of Wythenshawe which has since expanded from a population of 40,000 to the present population of about 100,000. The post-war development has been undertaken on the Neighbourhood pattern and has now been almost completed. In effect all that now remains to be done is the provision of

certain major local roads which have been designed as minor parkways and the development of the Civic Centre. This centre has been planned with pedestrian shopping streets and with large enclosed servicing and car parking areas in the rear of the shops, access being provided from the latter to the pedestrian ways through arcades.

**The Town Planning Institute.** Alfred R. Potter, OBE, who has been Secretary of the Town Planning Institute since its inception in 1914, retired at the end of June.

During the 46 years in which Mr Potter has been Secretary, the membership of the TPI has increased from 64 to over 4,000. Mr Potter has therefore seen the development of Town Planning over this most important period and his own work was crowned by the granting of the Royal Charter to the Institute in September 1959.

Mr Potter will be succeeded by Mr P. R. Rathbone, BA, until recently Scottish Secretary of the Royal Institution of Chartered Surveyors. Mr Rathbone was educated at Clifton College and University College, Oxford. He was for some years a member of the staff of the Ministry of Town and Country Planning and was later on the staff of the National Parks Commission before taking up his appointment with the Royal Institution of Chartered Surveyors in Scotland.

**The British Society of Aesthetics.** A new society has been formed to promote study, research, discussion and publication in aesthetics. The President is Sir Herbert Read. The annual subscription for ordinary membership and for institutional membership (libraries, schools of art and architecture, etc.) is 2 guineas. For students at a university or recognised school of art or architecture it is 5s.

Full particulars may be obtained from the Hon. Secretary, Miss Sylvia Schweppe, The British Society of Aesthetics, c/o The Department of Philosophy, Birkbeck College, Malet Street, London, WC1.

The Society has chartered a special plane for its members to attend, at a reduced fare, the International Congress of Aesthetics in Athens from 1-6 September.

**The Franco British Union of Architects.** The thirty-first Annual General Meeting of the Franco British Union of Architects was held from 3-7 June, with headquarters at Stratford on Avon. The meeting was attended by more than fifty members and their ladies.

The meeting was held at the 'Red Horse Hotel', Stratford.

The Minutes of the 30th Annual General Meeting, held at the Ecole des Beaux-Arts, Paris, on 16 May 1959, were read and confirmed. Members stood in silence for a few moments in memory of those who had passed away since that meeting: Messrs Bertrand, Curtis Green, C. S. Hyde, Charles Holden, Sir Giles G. Scott and P. Remaury.

The Secretary General gave a brief résumé of the work of the past session: The annual meeting was held in Paris with visits to the Palace of Fontainebleau and to many modern buildings in Paris. The annual competition between students of the Ecole des Beaux-Arts and British schools was held in May, followed by exhibitions of the best designs in Paris and

in London, where M. Chauvel, the French Ambassador, presented a prize, certificates and medals to successful British students.

Lt-Col. O. Campbell-Jones, FD, FRIBA, FRICS, was elected President for 1960-61 and Mme R. Bodecher, SADD, was elected Vice-President.

Lt-Col. Cart de Lafontaine was re-elected Secretary General. Monsieur A. Schneider and Mr G. A. W. Brandreth were re-elected as Hon. Secretaries of the French and British Committees.

The following candidates were elected as ordinary members: Messrs Arréche, Bernard de la Tour d'Auvergne, R. Dorlat, Devinroy, Yves Thibault, A. Laborde, Noviant, Marion, Pasquier, Victor Heal, H. N. Haines, A. Smethurst.

A vote of thanks to Monsieur Laprade, the retiring President, was proposed by Lt-Col. Campbell-Jones, seconded by Mr J. H. Forshaw and carried by acclamation; M. Laprade briefly replied.

It was decided that the next Annual General Meeting should be held in France and would take place from the 18 to 22 May 1961. Two suggestions for the place of meeting were made: Poitiers or St Malo. The choice of these was referred to the French Committee who will also prepare the programme and submit this to the British Committee in due course.

Mr Brandreth (Hon. Secretary of the British Section) gave notice that he wished to relinquish that appointment in October next. It was decided this was a matter for the British Committee.

## Obituaries

**Howard William Burchett [Retd F]**  
died on 12 June 1960.

Mr C. E. Hanscombe [Retd F] writes:

'Howard Burchett and I joined the staff of the Middlesex County Council as architectural assistants on the same formidable Monday morning over 50 years ago. The new boy feeling was a bond which quickly developed into friendship. Our department was accommodated in a small cottage annexe to the old Guildhall; including two clerks it numbered nine!

'Howard remained with the Council until his retirement; I left in 1920 to commence private practice, but our friendship has endured unbroken.

'In the department's growth from small beginnings there was an inspiring atmosphere of camaraderie and mutual help which not only made one's work enjoyable but which I am sure we all found of lasting benefit. Criticism was given without stint, whether asked for or not! In this activity one could always count on Howard; his enthusiasm was contagious.

'We spent much of our lunch time running round Westminster, advancing knowledge if retarding digestion. Some contemporary and past famous architects, not excepting Wren or Inigo Jones, might have taken exception to our confident criticism of their work, though perhaps youth is much the same in all generations.

'Howard's enjoyment of life was evidenced not only on the drawing board. He was an accomplished singer and pianist, and played lead over a long period in a well-known amateur operatic society. In

this hobby he was encouraged by his colleagues who invariably would journey to Croydon to see the show. Their encouragement took yet another form: having a retentive memory he knew the music and words of many of the Gilbert and Sullivan operas. A feeling of boredom in the drawing office on a dull day would instantly vanish if a voice urged "Give us the *Gondoliers*, Burch." His light-hearted mimicry of the male and female roles speeded our pencils whilst his own "Half-inch" kept pace.

Maybe such music-while-you-work interludes helped to redress the balance for lives largely devoted to the day's work, spare time snatching for the Final and the struggle to hang on to a rung in the overcrowded profession of those "bad old days".

Having mentioned his histrionic ability I must emphasise that first and foremost Howard's devotion was to his profession. He was a good man and a scholarly architect who has given inestimable service to Middlesex. For myself I gratefully acknowledge his good influence and generous friendship.

**Charles Henry Holden, DLIT.(LOND.), LIT.D(MANCHESTER), RDI, MTPI [F]** died on 1 May 1960.

At the Memorial Service to Dr Holden, held in St Pancras Church on 2 June, the following address was delivered by Mr Hope Bagenal [F]. Many of those who listened to it hoped that it would be printed in the JOURNAL, and we are indebted to Mr Bagenal for permission to do so.

"At this memorial service to our friend and colleague Charles Holden we stand in thought for a few moments beside his recent grave.

"May I repeat the opening lines of our Service today: "He is remembered with love and respect for his great services to architecture, for his integrity in all things, his lack of interest in public acclaim, and his simplicity of living."

"Nothing is more interesting than the influence of a man's job on his mind (and heart and soul). Architects specially in their job must identify themselves with the needs of others – must sympathise and help their clients yet discriminate; and this requires a combination of patience and friendliness. And this combination was characteristic of Holden. It is a clue. He had in him by nature a touch – "A friendly look upon living things" and his work helped him to develop it. He was often called into consultation on difficult worldly problems and once or twice he told me what he had said, how there came a response, how he had been able to help. And I recall that, as a younger man, I responded to an ethic.

"But not only patience is needed. An architect must know when to assert himself – use his personality as an instrument. He must somehow forcefully impose an order and get things done. Charles once told me how in his early days he had suffered from shyness and diffidence and how there came a crisis in one of his jobs, and he deliberately stiffened himself and imposed his will, and took risks. And afterwards he felt more sure of himself. It was clearly one of the lessons of his life. And many of us remember his gentle persistence.

"Also he could speak impersonally, without egotism, of his own creative work,

almost as though he were speaking of someone else. I have known painters who could do that. And those of us here today who accept the full teaching of Christianity know that the duty of self-discipline – the breaking of the ego – is one thing, but that self-expression, and the use of personal genius for God's purposes is another; and that the balancing of those opposites is one of the crucial problems of the interior life. Happily one occasionally meets people who show that it can be done. Their secret is an inner harmony won. And I always thought Holden had a quietist side. Mrs Holden was a member of the Society of Friends and they would often come on Sundays to Meetings in the old Quaker Meeting House in Hertford. It was a form of worship which he liked.

"And then as to his work.

"I was with him in Sicily and witnessed a thing of great interest – his response to Greek architecture. It was in the Segesta Temple; and time seemed to stand still. The temple floor was a grass lawn – a lawn in Spring (there is no cella wall); and a shepherd was playing his pipes as he had done any time these two thousand years. Holden was deeply moved. He said that of course they had deliberately not built the cella wall: it was omitted on purpose so that the hills – softly coloured – could be seen beyond the peristyle – on each side a different scene. *Why build more than this?* Then there was the stone-work: the shell conglomerate blown a kind of rough pearl: the masonry joints in molecular contact – almost invisible (even the vertical joints); and he saw that the triglyphs were very slightly set back on the architrave and thus gave a lighter profile to the angle. And this was not mere archaeology. He was responding to the full music of his own art. And of course to show these contemplative values – the grand continuities – is the specific genius of architecture. "When I speak of the antique I speak of the eternal."

"And the more he studied Sicilian masonry the more he returned in thought to Portland stone, and to his London University building. In comparing the great stones as means to high art there is no doubt that Portland stands with Istrian stone and Anglesey marble as having matt brightness of surface, and therefore having special value in a dark climate like ours. And he had been studying Portland stone for thirty years. One sees clearly his preparation for the University building. He loved cut stone – the excellence and coherence of good masonry – loved it as a craftsman (he was a member of the Art Workers' Guild) and longed to carve it himself. He spent time on the University scaffolds, and discovered a mason who said he too would like to carve, and Charles allowed him to do so, and he did the big projecting spout on the tower.

"Dr Deller – Principal of the University – had gone with Holden to the Isle of Portland – when the stone was being considered: and James Bone went with them, I remember (and recorded it as an historical event in the *Manchester Guardian* in a delightful article). They saw big holes in the ground – the concaves of London buildings from Wren's St Paul's onwards.

"It happens that I know about the technical performance of the University building. I have studied it with two colleagues, and with Mr Keene, the Clerk of Works, and we were referring always to the original

specification. That specification is a work of minute care: and studying it I have often recalled a little outburst of Lionel Pearson's: "There is Holden trying to get the smallest detail exactly right in his enormous job."

"And we should recognise, in the history of our times, that the University was a good client – taking the broad civic view, generally agreeing, willing to take some risks such as building higher than the bye-laws permitted. There was a great moment in the development of the design – described by Holden himself at the RIBA. When the elevation was first projected up from the plan he said "it was exciting to find that the building had almost designed itself". And part of the good planning was contributed by the good organising of requirements on the part of the University. And so the building has a particular dominance. Though it is always developing and adding to its parts it maintains an order, a unity. In so large a building that is remarkable. And Holden was well supported in his ideas about durability, and that maintenance after 500 years should be low. He distinguished and defined the long-term building in an age of short-term economics. And this has an aesthetic reference: because *quality* is bound up with durability, with resistance to the long siege and assault of our climate.

"On Tuesday 24 May there was an Italian light in London and bits of architecture appeared here and there like apparitions. In that light I came upon the Tower: it had a kind of glow beyond the fresh green of the London plane trees. I had not seen it in such a light since its washing down last autumn; and I recognised its grandeur and recognised a great deal of what had gone into the making of it.

"And I have not mentioned his experimental, his adventurous side. He thought things out: but as a craftsman, not as a dialectician. I often wondered how deep he went in analysing the modern social forces he served. During the war (1940) Eric Gill published his autobiography which, to my mind, stated an unanswerable case, intellectually, against an industrialised civilisation. I wrote to Holden and asked him what he thought. (At that time the office of the firm in Torrington Square had been bombed and London University gave them quarters in the new building.) I have found his letter in my copy of Gill's book. He writes from the University building, March 1942, as follows:

"It comes simply to this: that I was born in an industrial age: that I was urged by a passion for building and for service: and that I have an invincible belief in the power of the human soul, the God in man, to rise above, and master, ugliness and desolating conditions. I must exercise this passion even in the industrial age into which I was born. It is the profit motive in Industrialism which is the foul thing."

"And he continues:

"I was very fond of Gill and we were good friends, and many were the arguments we had on architecture and sculpture and industrialism . . . but he failed to see the beauty in the soul of man in the industrial age – he saw only a system to be condemned, and to be avoided by withdrawal. But there is still beauty in the soul of man and I am content to work in the service of *that* and to give him such beauty and order as lies within my capacity."

"There we have the man as we knew him –



his spirit – the secret of his touch upon life. And life responded, and gave him much. And now he has gone forward and I hope and believe that the Resurrection and the Life will give him more.'

Mr Christian Barman, RDI [F], writes:

'Holden's place in the history of English architecture is a curious one. It is unlikely that he will be remembered as a pioneer in the sense that Mackintosh and Voysey are today. He gave a great deal to the world, but what he gave is perhaps less important than what he resisted and saved us from. During a period which littered our towns with the chewed fag-ends of the Victorian stylistic revivals he seemed to many of us to stand alone, a pillar of honesty, integrity and common sense. The list of seven buildings that gained the RIBA bronze medal before it was awarded to his Underground headquarters gives a pretty clear picture of the kind of environment against which that gentle, soft-voiced, gold-spectacled figure held out in uncompromising revolt.

'It is true that he was not, in fact, alone; if he had been he could not have accomplished what he did; but he was alone among successful practising architects. His work epitomises the period when the newly formed Design and Industries Association became a rallying point for all those in business and in the design professions who were determined to work for something that is now referred to as "contemporary" design. These people were his friends and associates in rebellion. Most of them, however, were only able to express themselves through speech-making and pamphleteering. The principal exceptions were Ambrose Heal, Curwen, Frank Pick and Holden, and of these Holden was the only architect with a real practice. His singularity lay in the fact that he was able to carry revolt into the field of actual building and on a considerable scale.

'Probably the decisive period was the first five years of his association with Pick, starting in 1923 when he was commissioned to design the new Westminster station. This period produced the Morden Line Underground stations and culminated in 55 Broadway. The impact of this building on the public mind was strongly reinforced by the Epstein carvings which attracted a roar of abusive noises led by the baying of Sir Reginald Blomfield, a leading exponent of the public architecture of the day. The building as we may judge it in retrospect has a number of faults. Here and there its formal idiom reminds us of traditions long discarded. Nevertheless it marks quite a turning point in the history of design in this country. It publicly demonstrated the fact that the rebel had arrived. For the first time it began to look as though 20th-century England might manage after all to produce a 20th-century architecture and not just a few experimental houses in the back streets of Chelsea and on the Chiltern heights.'

*List of works designed in association with H. Percy Adams or (after 1907) in partnership with him.* Lionel Pearson joined the firm as partner in 1912. Dates given after works are approximate.

*Cemeteries:* War cemeteries of Boulogne, Wimereux, Corbie, Louvencourt, Forceville, etc., for the Imperial War Graves Commission, of which he was one of the four principal architects from 1918-22 (with Sir

Reginald Blomfield, Sir Edwin Lutyens and Sir Herbert Baker).

*Club:* University of London Students' Union, 1955.

*College:* King's College for Women, Kensington, 1914.

*Decorations:* ss *Tuscania*, 1922.

*Hospitals:* Brighton Hospital: John Howard Wing, 1932; Bristol Royal Infirmary, 1912; Royal Northern Hospital, Manor Gardens: St. David's wing, 1931; Kennington: Belgrave Hospital for Children, 1903; London Hospital (project), 1947; Westminster Hospital, Broad Sanctuary (alterations), 1925; Westminster Hospital, St John's Gardens and Horseferry Road, 1936; Soho Square: Women's Hospital, 1908; Torquay: Torbay Hospital, 1925; Tunbridge Wells General Hospital, 1904; Margate and District General Hospital, 1928; Midhurst: King Edward VII Sanatorium, 1906; Southport Homoeopathic Hospital, 1910.

*Hospitals abroad:* Constantinople: British Hospital, 1903; Malta: St Luke's (Government) Hospital, 1930.

*Housing:* The Knott Housing Scheme, Tynemouth, 1953 (in association with Tasher and Child).

*Institution:* Institution of Electrical Engineers (hall, library and lecture hall), 1910.

*Ophthalmic Hospital:* Royal Westminster Ophthalmic Hospital, 1926.

*Nurses' Hostel:* Westminster Hospital Nurses' Hostel, 1935.

*Laboratory:* Cambridge: Cavendish High Tension Laboratory, 1938.

*Libraries.* Aberystwyth: National Library of Wales (additions, part of book stack and administration building), 1933; Bristol: Central Reference Library, 1905; Kensington: King's College for Women Library, 1923.

*Office buildings:* British Medical Association, Strand, 1908; Incorporated Law Society Building, Chancery Lane, 1904; Evelyn House, Oxford Street, 1910; Norwich House, High Holborn, 1910; Strand: Building for the English Electric Co. on the Gaiety site, 1955.

*Office Building of Public Authorities:* 55 Broadway, Westminster: HQ of London Passenger Transport Board (including St James's Park station and formerly called Broadway House), 1928; Acton: Metropolitan and District Railway, 1929.

*Power Station:* Finchley, Archway Road: Sub-station, 1946.

*Railway Stations (including Underground):* Boston Manor, 1934; Cockfosters, 1933; Ruislip Manor, 1938; Osterley, 1934; Rayners Lane, 1938 (with R. H. Uren); Gants Hill, underground concourse, 1948; East Finchley (LPTB and LNER), 1946; Morden Line – various stations, 1926; Piccadilly Circus, 1929; Ealing Common, 1931; Sudbury Town, 1932; Southgate extension railway – various stations, 1932; Manor House, 1932; Arnos Grove, Southgate, 1932; Enfield West, 1932; Southgate, 1933; Chiswick, 1933; Northfields, 1933; Turnpike Lane, 1933. Underground – various stations, shelters, equipment, posters, with and without Heap, Uren and Bucknell, 1942.

*Note:* In all some 50 Underground stations altered or built.

*School:* Sutton Valence School and Chapel, 1911 and 1929.

*Societies' Buildings:* London: Warburg Institute, 1958; Arthur Street, Shaftesbury Avenue: Orchestral Association Building, 1910.

*Town Planning Schemes:* City of London: Final Report, 1947; Interim Report, 1946; with W. G. Holford: South Bank, London, 1947. Canterbury – replanning, including bombed area, 1943; with H. M. Enderby. Planning Consultant to Edinburgh University regarding George Square, 1947.

Architectural and Planning Consultant for East End Redevelopment, Tynemouth, 1949.

*University Buildings:* London: Campden Hill. Rebuilding after war damage of the eastern block of Queen Elizabeth College (University of London Home Science Department of King's College for Women), including library, lecture room, stage, laboratory and offices, 1953; with H. P. Adams only. University of London, Bloomsbury, 1932 (sole Architect); Senate House block, 1936. University Hall, 1940. School of Oriental and African Studies, 1938. Birkbeck College, 1953.

*War Memorials:* Gateway, Clifton College, 1922; Memorial at New College, Oxford (with Eric Gill lettering), 1920.

**Dr Thomas Alwyn Lloyd, OBE, LLD, PPTPI, FSA [F]**  
died on 19 June 1960, aged 78.

Mr Alex J. Gordon [A] writes:

'Only those close to him knew Alwyn Lloyd's real age, for in all respects he appeared a younger man. His mind was as keen and flexible as that of a person half his age. His sense of humour was undiminished, and his sprightly walk was the envy of others his junior by many years.

'To give a false impression of his age was the only deceit he ever practised, for he impressed everyone with his fine bearing and straight-forwardness, and those who knew him well know how deep rooted and genuine were these qualities, which were combined with a gentle and considerate manner.

'T. Alwyn Lloyd was born in Liverpool in 1881, and as a boy was taken by his father to the funeral of Mr Gladstone. Later he became a student at the Liverpool University School of Architecture (before Charles Reilly's time) and in those years became interested in the movement for better housing, and acted as local Hon. Secretary of the Garden City Association, under the influence of Ebenezer Howard, the founder of the movement and of the Garden City of Letchworth. T. Alwyn Lloyd subsequently entered the office of the late Sir Raymond Unwin, the best known of the early planners, and spent five years assisting in the development of the Hampstead Garden Suburb, London. He came to South Wales in 1912 to be architect to the Welsh Town Planning and Housing Trust Ltd, established by Mr David Davies of Llandinam and his family. The Trust initiated garden villages in Wales, including Rhiwbina, Barry, Wrexham, Burry Port, and two smaller villages in Montgomeryshire. Later the Trust was concerned in the establishment of housing estates for the Great Western Railway Co., in various centres. T. Alwyn Lloyd was architect for the layout and design of about 1,600 houses for railwaymen.



'After some years in charge of the Trust's architectural and planning work, he commenced practice on his own account, and was responsible for municipal housing in England and Wales, colliery villages and new rural experiments, such as those for the Welsh Land Settlement Society and later the Forestry Commission. He acted as Consultant for planning schemes in town and country.

'One of the very first Authorities to prepare a Town Planning Scheme was Aberystwyth Corporation, which authority he advised from about 1925 to 1938. He was also retained by other Welsh Authorities under the Planning Acts.

'When the Pembrokeshire Joint Planning Committee was formed in 1935, this being the first such Committee in Wales on a County basis, T. Alwyn Lloyd was appointed Consultant, and continued in that capacity until the County Council took over the Joint Committee's functions in 1948.

'He was a member of the Minister of Health's South Wales Regional Survey Committee 1920-21, under the Chairmanship of Sir William Seager, and also served on two other Departmental Committees at the Ministry of Health. In 1946-47 in conjunction with Mr Herbert Jackson, he was responsible for the Outline Plan for the South Wales Development Area, subsequently published by the Ministry. With Alex Gordon whom he took into partnership in 1949, he was awarded the RIBA Bronze Medal for the South Wales Institute of Architects district for the ten years immediately following the war.

'T. Alwyn Lloyd was President of the South Wales Institute of Architects in 1929-31, and was closely connected with the Council for the Preservation of Rural Wales since its foundation and until his death was the present Chairman of that Council. In 1933 he was elected President

of the Town Planning Institute, having been a member of the Institute's Council for many years. In 1932-34 he was Chairman of the National Housing and Town Planning Council, having now been associated for some 30 years with that body. In 1950 the University of Wales honoured him by awarding the honorary degree of LL.D., and in 1953 he was made a Fellow of the Society of Antiquaries.

'His interests were wide and in his capacity as Honorary Lecturer at the Welsh School of Architecture many generations of students have been indebted to him.

'He was keenly interested in Archaeological Research and was for 40 years a member of the Cambrian Archaeological Society, becoming its President in 1958. For many years a supporter of the National Eisteddfod of Wales, he had particular associations with it this year in Cardiff when it would have given him great pleasure to see the Eisteddfod Gold Medal for Architecture awarded for the first time.

'Alwyn Lloyd will be remembered not only as an architect, but as a friend and confidant in many circles. His wisdom and understanding were at all times evident and not least so as a Justice of the Peace. He was Chairman of the Discharged Prisoners Society and Chairman of the Visiting Committee, and remained actively interested after his retirement from the Bench.

'He leaves a widow who had been his constant companion since they worked together in Raymond Unwin's office. His partner and all his staff are deeply conscious of a great void now that he is gone. With them many people throughout the whole country will echo the words spoken at his funeral service.

'"We thank God for every remembrance of Thomas Alwyn Lloyd, richly endowed by nature with many graces, dignified, gentle, considerate, he possessed with the hall mark of true greatness—humility."

of Arts (BA) with Honours and the Diploma in Architecture, followed by the Examination in Professional Practice and Practical Experience, are recognised by the RIBA for exemption from its Final Examination, and by the ARCUK for the purpose of statutory registration. For the existing degree of BA a candidate has to study in his first year, in addition to the architectural subjects, two subjects in the Faculty of Arts, one of which must be a foreign language. The new degree of Bachelor of Architecture will be awarded on identical conditions except that in the first year, in addition to the architectural subjects, a student will only be required to take one subject in the Faculty of Arts, and this need not be a foreign language. As far as architecture is concerned the course is unaffected, i.e. the entrance requirements are the same, and the length of study (five years) and the syllabus and examinations are the same.

The Council approved the recommendation that the existing recognition for exemption from the Final Examination be extended to include the new degree, i.e. Bachelor of Architecture (BArch) with Honours.

**Department of Architecture, Brixton School of Building.** On the advice of the Visiting Board, Council agreed that the Department of Architecture of the Brixton School of Building be recognised under the usual conditions for exemption from the RIBA Intermediate Examination.

**Membership.** The following members were elected: as Associates 8.

**Students.** 158 Probationers were elected as Students.

**Applications for Reinstatement.** The following applications were approved: as Fellow: Paul Willoughby; as Associates: William Robert Davison, Mrs Mary Tye; as Licentiate: James Albert Bouch.

**Obituary.** The Secretary reported with regret the death of the following members: John Leonard Hope, Thomas Alwyn Lloyd, OBE, LL.D.(Wales), JP, PPTPI, FSA [F], Howard William Burchett [Reid F], Albert Henry Jones [Reid F], Ralph Wilson [Reid F], Maurice David Berman [A], William Suthers Hartley [A], Geoffrey Haigh [L], James Stratton Paterson [L], Arnold Plackett [Reid L], Laurence Anthony John Golding [Student], Dennis Leslie Lightfoot [Student].

## Membership List

### ELECTION: 5 JULY 1960

The following candidates for membership were elected on 5 July 1960.

#### AS ASSOCIATES (8)

Derrick: Alwyn Athol, Dip.Arch.(Auck., NZ), Suva, Fiji.

Jordan: John Edward, Dip.Arch.(Birm.), Lagos, Nigeria.

Lim: Chin See, Dip.Arch.(Manchester), Pahang, Federation of Malaya.

Rolfe: Michael Richard, Dip.Arch.(Northern Polytechnic), Sydney, N.S.W., Australia.

Shwaib: Hamid Abdulalam, Dipl.Arch.(Oxford), Kuwait, Arabia.

Smith: Eric Grant Tennant, D.A.(Edin.), St Johns, Antigua, West Indies.

Spear: Robin Edward, Dipl.Arch.(U.C.L.), Westmount, P.Q., Canada.

Swales: Terence George, A.A.Dipl., Accra, Ghana.

## Notes from the Council Minutes

### MEETING HELD ON 5 JULY 1960

#### Appointment of RIBA Representatives.

(a) *Central Panels Committee:* Gordon C. Logie [A] in place of P. E. A. Johnson-Marshall [A], resigned.

#### RIBA Trust Funds Amalgamation Scheme.

In July 1957, the Council approved a proposal to get the sanction of the High Court to amalgamate all the RIBA trust funds into a single investment trust.

On 20 June 1960, the necessary authority was given by the High Court for the scheme to be implemented in a slightly modified form.

All the trust funds may now be amalgamated into a single pool as from 1 January 1960. This pool is to be divided into two parts. One part, not less than one-third of the total value, must still be invested in trustee securities. The other part, up to two-thirds in value, may be invested in equities. If there is any further relaxation by Parliament in the definition of trustee stocks, the Institute will not be permitted to take advantage so far as the

one-third part is concerned. There are also minor restrictions on the freedom of investment of the two-thirds part.

All legal costs are to be met from ordinary funds.

There are two distinct aspects of this matter; the amalgamation into a single fund will make for more economic management, while the permission to invest outside trustee stocks will enable the Institute to take advantage over a long period of capital appreciation of equities.

The Council have already appointed Messrs Chase, Henderson and Tennant as the Institute's investment managers. No sensational improvement in finances should be expected immediately, but there is no doubt that advantage will accrue over a long period.

**Department of Architecture, University of Sheffield.** The Board of Architectural Education have been informed that the University of Sheffield is proposing to institute a further degree, i.e. Bachelor of Architecture (BArch) with Honours. At the present time the degree of Bachelor

## Members' Column

*This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.*

### APPOINTMENTS

Mr Mesud Cagdas [A] has been appointed architect-in-charge of the Kuwait office of Messrs Covell and Matthews [F/A]. His address is PO Box 8072, Kuwait, Arabia, where he will be pleased to receive trade literature.

Mr Walter M. Smith [A], formerly Building Surveyor with the City Architect's Department, Salisbury, Southern Rhodesia, has taken up an appointment as Senior Architect in the New Zealand Ministry of Works (Wellington District). His address is c/o District Architect's Office, Sydney Street, Wellington, New Zealand.

Mr Gordon Young [A] has been appointed lecturer in Building Construction and Building Science at the Department of Architecture, South Australian Institute of Technology, North Terrace, Adelaide, South Australia, where he will be pleased to receive trade literature.

### PRACTICES AND PARTNERSHIPS

Mr Edward Francis-Jones [A] has opened an office at 23 Great Darkgate Street, Aberystwyth, Cardiganshire, where he will be pleased to receive trade literature, samples, etc.

Messrs Guise, Davies and Upfold [F] of 132 Sloane Street, London, SW1, have established an associated practice in Ghana under the control of Mr Alan E. Crocker [A]. The practice will be in the style of Guise, Davies, Upfold and Crocker, PO Box 0129, Christiansborg, Accra, Ghana, where they will be pleased to receive trade catalogues.

Messrs Hadfield, Cawkwell and Davidson (Mr R. Cawkwell [F], Mr J. W. Davidson [F] and Mr G. R. Adams [A]) have taken Mr John Watson Cooper [A] into partnership. The firm will continue to practise under the name of Hadfield, Cawkwell and Davidson at 17 Broomgrove Road, Sheffield 10 (Sheffield 66016).

Mr D. V. Hewitt [A] has commenced partnership with Mr T. Cuttle [A] under the style of Hewitt and Cuttle at 14 Smith Street, St Peter Port, Guernsey, CI (Central 1927). Mr Hewitt will continue to practise under his own name at 5 The Esplanade, St Helier, Jersey, CI (Central 24394).

Mr Ronald W. Hoare [A] is now carrying on his practice from 26 London Street, Basingstoke, Hampshire (Basingstoke 2332), where he will be pleased to receive trade catalogues. Representatives by appointment only.

Mr Kenneth H. Northover [L] has entered into partnership with his son, Mr C. F. Northover [A]. They are practising under the style of Northover and Northover at The Studio, Ingleden Park Road, Tenterden, Kent (Tenterden 203).

The practice of Peacock and Bewlay has ceased. Mr E. Berks Norris [A] has retired, and the partnership existing between Mr Norman T. Rider [F] and Mr Peter W. J. Neale [F] has been dissolved. Mr Rider and Mr Neale have commenced private practice separately at 224 Hagley Road, Edgbaston, Birmingham 16 (Edgbaston 2933-4).

Messrs Ronald Salmon and Partners [AA] have taken into partnership Mr Alan J. Middleton [A]. The practice will continue at 2A Vicarage Gardens, Kensington, London, W8 (Bayswater 7410 and 7455) under the style of Ronald Salmon and Partners.

Messrs Elsworth Sykes and Partners [AA/L] of Ruskin Chambers, Scale Lane, Hull, have established an office at 5 Maddox Street, London, W1 (Hyde Park 3128). Mr Hugh Pite [A] and Mr M. J. Needham, associates of the partnership, will act as principals of the London office.

Mr Lewis Wilson has taken Mr William Vernon Purcell [A] into partnership. The practice will continue at 13 Park Hill, Carshalton, Surrey (Wallington 7005), under the style of Lewis Wilson and Partners.

Mr W. Newcome Wright [L], having practised in the City of London as architect, surveyor and valuer for the past 50 years, has now retired. He has transferred his connections to Messrs St Quintin, Son and Stanley of 149 Leadenhall Street, London, EC3, to whom his clients are referred. Mr Newcome Wright will remain available at his present address, 164 Bishopsgate, London, EC2, for consultation.

### CHANGES OF ADDRESS

Mr J. E. Codrington Forsyth [A] has changed his address to Stjarnsundsgatan 25ii, Bandhagen, Sweden (Stockholm 010/79 37 55).

Mr R. A. Durrant [A] is at the moment on leave in the UK from Ghana and his temporary address is 69 Moy Avenue, Eastbourne, Sussex.

Mr W. F. G. Heath [A] has changed his address to c/o Ministry of Works, PO Box 561, Bulawayo, Southern Rhodesia.

Mr S. P. Jordan [A] has changed his address to 13 Beauchamp Place, London, SW3 (Knightsbridge 4541-2).

Mr F. M. Marlow [A] has changed his address to 46 Heron Way, Hatfield, Herts.

Mr Hugh Pite [A] has moved his office to 5 Maddox Street, London, W1 (Hyde Park 3129), where he will be working in association with Messrs Elsworth Sykes and Partners [AA/L] of Ruskin Chambers, Scale Lane, Hull.

Mr David Rock [A] has changed his address to 6 Westrow, Westleigh Avenue, Putney, London, SW15.

Mr Frank Sleigh [A] has changed his business address to Suite 4, 110 West 14th Street, North Vancouver, BC, Canada.

Mr William G. J. Sowersby [A] has changed his address to 9 Leigh Orchard Close, Streatham, London, SW16 (Streatham 6131).

Mr Hugh V. Sprince [A] has changed his address to 75-6 Blackfriars Road, London, SE1 (Waterloo 4362-3).

Mr James Taylor [F] has changed his address to 12 Royal Terrace, Glasgow C3 (Douglas 8294-5).

Mr W. J. Twemlow [A] has moved to Suite III, Chase House, Leslie Street, Vereeniging, South Africa; PO Box 698, Vereeniging. Mr F. H. C. Dixon [A] continues in association with Mr Twemlow at Talas Building, Windhoek, South-West Africa; PO Box 980, Windhoek.

Mr H. C. Wilkerson [F] has changed his address to 118 Newgate Street, London, EC1.

### PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Fellow has small pleasant practice for disposal. North Cornwall. Well furnished offices. Rent reasonable. Adequate work in hand. No capital required except for purchase of furniture, etc., on agreed valuation. Existing small but efficient staff could be retained. Box 147, c/o Secretary, RIBA.

Old-established and progressive firm of Yorkshire architects wish to contact similar firms in London and other parts of the country with a view to amalgamation, basically to expand the scope of both practices, or would consider buying practice where existing partner is contemplating retirement. All communications will be kept strictly in confidence. Box 156, c/o Secretary, RIBA.

Chartered architect, for many years Chief Architect to a firm of international repute, seeks to acquire outright a practice in south-west coastal district or alternatively, a partnership in a larger office. Age 47. Married with

two sons and one daughter. Available latter part of 1960 earliest, but available for interviews in August. Some capital available. Box 157, c/o Secretary, RIBA.

Associate at present in highly successful practice in Cape Town, arriving in UK in August, seeks senior position in small London firm with view to partnership, or alternatively purchase of practice. Proven ability to inspire clients and bring in work. General varied experience with particular experience in multi-storey housing development projects. Some capital available. Box 158, c/o Secretary, RIBA.

Firm with growing practice on south coast wish to contact an Associate with initiative to fill a post leading shortly to partnership. Age 30 to 35. Flat is available. Box 159, c/o Secretary, RIBA.

Two members, with practice capable of expansion, would like to hear from others with the view to mutual assistance or the sharing of office and clerical facilities, etc. Central or north London area preferred. Box 160, c/o Secretary, RIBA.

Associate with prosperous Manchester practice, contemplating semi-retirement, would like to contact members with own practice or good connections with a view to amalgamation and expansion. Box 161, c/o Secretary, RIBA.

Established Manchester architect would like to meet member with own connections with a view to early partnership and gradual take over. Box 162, c/o Secretary, RIBA.

### ACCOMMODATION

Office in Temple to let, 230 ft. sup. plus 100 ft. sup. in adjoining room suitable for files and plan chests. Secretarial services available. Box 150, c/o Secretary, RIBA.

### MISCELLANEOUS

Member requires to purchase a 6 in. set of Stanley instruments. Preferably plain points. Box 148, c/o Secretary, RIBA.

For sale. Three screw dumpy level in mahogany case. Believed to be ex-W.D. Can be seen Sutton, Surrey. Box 149, c/o Secretary, RIBA.

*The Royal Institute of British Architects, as a body, is not responsible for the statements made or opinions expressed in the JOURNAL.*

## A B S

### Professional Indemnity

The claims made against Architects in recent years alleging professional negligence show a striking increase both in number and size. It is found of course that many of these claims prove to be without foundation, but inevitably legal expenses – often very substantial – are incurred in rebutting the charges made. Experience shows that costs awarded against an unsuccessful claimant may, in fact, be irrecoverable.

In conjunction with Underwriters at Lloyds the Agency offers comprehensive Indemnity to Architects covering any amounts the Architect may be required to pay in the event of a claim against him succeeding as well as the full cost of legal defence whatever the outcome of the case. The costs incurred in litigation in recovering or attempting to recover professional fees are also covered. This policy affords the widest protection at a competitive rate of premium. Write for particulars to:

The Manager  
ABS Insurance Agency, Ltd,  
66 Portland Place,  
London, W1.  
(Telephone: LANgham 5533)

latter  
inter-  
lable.

essful  
K. in  
ondon  
tively  
nspire  
varied  
multi-  
Some  
etary,

coast  
ive to  
. Age  
, c/o

le of  
others  
or the  
, etc.  
I. Box

prac-  
would  
actice  
amal-  
, c/o

d like  
s with  
l take

plus  
le for  
ervices

set of  
points.

ogany  
e seen  
RIBA.

cts, as  
ments  
NAL.

y

cts in  
igence  
umber  
any of  
unda-  
often  
utting  
s that  
cessful  
le.

ers at  
ensive  
any  
red to  
t him  
f legal  
case.  
cover-  
sional  
ds the  
ate of

1

2

**B**

1. Co  
wh  
Ho

2. and

3. wit

4. M

5. (V

6. Re

RI





1



2

## British Architects' Conference

1. At the Inaugural Meeting, (Left to Right): The President, RIBA; Professor R. A. Cordingley [F], President of the Manchester SA; The Secretary, RIBA; Mr E. Seddon whose firm was the general contractor for Blackley Cemetery; Mr Leonard Howitt [F], City Architect, Manchester

2. The Civic Reception: The President and Lady Spence, with the Lord Mayor and Lady Mayoress

3. Mr W. A. Allen [A], Chairman of the British Architects' Conference Committee, with Mr R. W. Wilding [A] from Vancouver

4. Mr Alex Gordon [A] with Mr Haydn Smith [F], Vice-President of the Manchester SA, and Mrs Smith

5. Mr Clifford Culpin, OBE [F], Mr Howitt, and Mr A. G. Sheppard Fidler (Vice-President)

6. The President talking to Mr Cecil Stewart [F], Head of the School of Architecture, Regional College of Art, Manchester



3



4



5



6

# Report of the British Architects' Conference on 'Rebuilding Our Cities'

Held in the Free Trade Hall, Manchester, 15-18 June

The President, Mr Basil Spence, OBE, TD, RA, ARSA (Knight-Designate), in the Chair

## THE INAUGURAL MEETING

The first day's proceedings opened with a speech of welcome by the Right Worshipful the Lord Mayor of Manchester, Alderman Arthur Donovan who wished the Conference success in all respects. After congratulating the President on receiving a Knighthood, the Lord Mayor said that when he visited miles of mean, squalid, ugly streets without a scrap of architectural beauty, he felt the presence of some deadening influence, and that this influence must react on the lives and on the outlook of those citizens whose unhappy lot it was to spend their lives in such drab surroundings. On the other hand, when he saw where the art of architecture had been practised freely over the years and continues to be practised, embracing features of beauty and imagination, he felt a 'sense of buoyancy as if one's soul has been stirred and awakened'.

The Lord Mayor said he knew that architects in the pure application of their art constantly encounter difficulties. In local planning they frequently come up against snags resulting in compromise, and so led to a general levelling down of standards and taste, and a sacrifice of good architectural principles.

This problem, he said, was really one of relations between developers, architects, planning committees, individual citizens, and in many cases central government. 'Undoubtedly there are many good architects, but they have to do so much compromising with clients and various authorities that their artistic imagination and enterprise are inevitably stunted or smothered. . . . I am sorry I cannot offer any ready-made remedy to ease their position or remove their frustrations. I hope therefore that the Conference will successfully tackle some of their problems so that the members may more easily practise their great art and make their due and lasting contribution to our national life.'

### Presentation of the RIBA Bronze Medal

After thanking the Lord Mayor for his speech of welcome, the President made the presentation of the RIBA Architecture Bronze Medal in the area of the Manchester Society of Architects to Mr Leonard Howitt [F], City Architect of Manchester, for his crematorium and cemetery chapel and registrar's office at Blackley Cemetery.

He also presented a replica of the medal to the Lord Mayor, representing the city of Manchester as building owners, and a certificate to Mr Ernest Seddon of Messrs G. and J. Seddon, the contractors.

Mr Howitt said he was proud to receive the medal on behalf of his department, mentioning by name Mr S. G. B. Roberts [A], Deputy City Architect, Mr J. S. Marsh [A], principal assistant architect, Mr G. Carter [A], the group leader in charge of the work, and his assistants Mr F. Williams [A] and Mr N. Stanley [A].

## PRESIDENTIAL ADDRESS

### The President:

Our cities are the heart of our civilisation. Our historic and architectural treasures bear witness to our ability to create towns and cities as beautiful and civilised as any in the world - Bath, Edinburgh, York, Chester, the Georgian terraces, our finest parks and streets continue to draw tourists from all over

the world. But the greater part of our towns and cities are grim deserts of bricks and mortar, great areas of dereliction and subtopian wastes of semi-detached houses and bungalowoid growths left by the industrialists of the 19th and the speculative builders of the 20th centuries.

Our precious land, so beautiful and so small, has become a casino for the speculators who are now clamouring to build in the green belts that surround our cities - less, one suspects, because they really want to solve the housing problem, than because there is a fortune to be made if the Minister of Housing and Local Government can be persuaded (and I hope he never will be) to relax his defences. Like the profiteers who corner the bread supply in a besieged city, the speculators are cornering the limited supply of building land in town and country and holding the community up to ransom. The money that should be going into better architecture and higher standards is being taken by people who have contributed nothing to the building process. This has grown to the dimensions of a public scandal and threatens to make good planning and city reconstruction prohibitively expensive.

I sympathise with builders who find it increasingly difficult to build, but we must harness their skill and resources to the building of new towns and the renewal of old ones, and prevent the continued outward sprawl over the countryside.

The problem of rebuilding our cities bristles with difficulties. We need new powers and new sources of money. We need to raise our own standard of proficiency, and to apply some of our greatest talents to the task. But, if the nation decides that the job can be done, I am sure that we in all the professions concerned can do it. But I must add that if the opportunity is not taken now, it will not recur in our time. This is the problem that our conference is going to discuss today and tomorrow.

## SYNOPSIS OF THE CONFERENCE PAPERS

### Mr Hubert Bennett [F]

After showing slides, Mr Bennett said:

What I really want to say in respect of our planning difficulties is that until we put down on paper in this country the road pattern of the future we shall get nowhere.

As I said in my paper, we get at County Hall almost 15,000 planning applications every year and many thousands of them bring traffic problems in their train. These problems cannot be solved satisfactorily because it is impossible to deal with traffic problems in isolation.

At the present we are spending as much as £6 millions a year on what can only be called road improvement schemes. I don't want to say that road improvements aren't necessary, but they are not the answer. The road pattern of the future has already been designed and accepted in some capital cities - Stockholm, Copenhagen, and West Berlin, for example - and I think that everybody concerned here has a responsibility to see that this work is done immediately. I find it difficult when people come along expecting an answer to some development proposal and have to be met with a blank. It means in some cases they have to wait months or years, and land is wasted and this is very expensive. We cannot deal with planning until the people who deal with traffic have done their job.



The principal speakers: Mr Hubert Bennett, Mr Hugh Wilson, and Mr Arthur Ling

It appears this country needs 1,900 miles of motorways, but that is only 1 per cent of the road area of this country. This gives some idea of the size of the problem.

In dealing with traffic congestion at the centre, the information I gather from other cities in the world is that our plot ratios are too high. Unless a proper ratio is observed we are just going to carry on getting traffic congestion. Plot ratios will have to be examined really seriously. The other point on congestion is the long-term parker. Surely it is wrong today that a man can leave his car on the highway from nine-to-five. If we could only get 50,000 cars out of the centre of London we might begin to get somewhere with our traffic problem. We need a planning scheme for parking over the whole London area as part of a planned scheme, and not just a casual pattern.

Finally, turning to the thousands of acres that require redevelopment. What an opportunity they present for comprehensive redevelopment. The opportunities are overwhelming.

**Mr L. Hugh Wilson, OBE [4],** architect to the Cumbernauld new town, first showed slides of the area and several slides showing development patterns, and the road pattern for the new town. He continued:

We have just heard about what is happening in a great city. My own paper is concerned with the smaller towns and also with new towns, but my remarks this morning apply in a more general way to the problems that face us today as members of a nation which has to engage in a vast programme of urban renewal and as members of a profession vitally engaged in the actual work of replanning and rebuilding. I do not apologise for coming back to this point about traffic because that is the principal lesson we have tried to bring out in our papers. The motor-car is in the news. Everywhere one reads about the various makeshift measures of dealing with the problem.

Car ownership figures are rising year by year, traffic congestion has increased to the point that any fine week-end or special event bring chaos to the roads. The recently announced increases in productivity by the car manufacturers (presumably with Government encouragement or at least connivance, since sites for the new factories have been selected only after long discussions with the Board of Trade, and other departments) can only add to this problem.

No one would dream of building engines and rolling stock for a railway without making provision for the necessary permanent way, signalling system, stations, etc.; but this is just what happens with road transport. And at the same time the money collected in taxes from the motorist is used for other purposes. What a crazy world it is.

Rarely does one see any reference even to the need for research into the fundamental problems of traffic growth and movement. We have substituted hunches for analysis.

I would like to see the car manufacturers taking the lead in this and setting aside money to establish research fellowships in our Universities to further our knowledge about the motor-car and its uses. If the manufacturers would do that, and they have a responsibility in my opinion, it would at least be an attempt to find out what is going to happen when the cars get on the road. This matter of research is quite fundamental to the whole question of traffic flow and traffic movement.

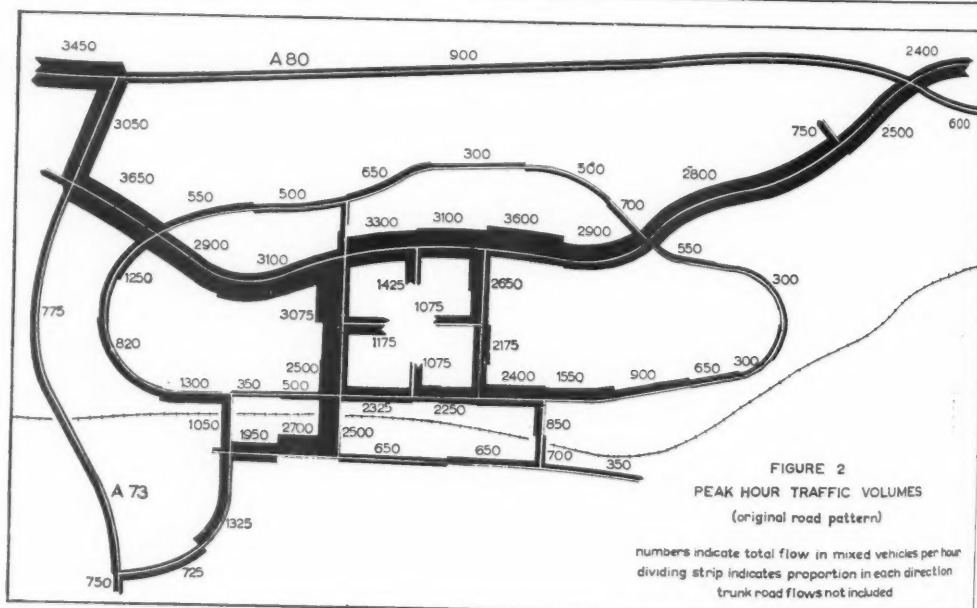
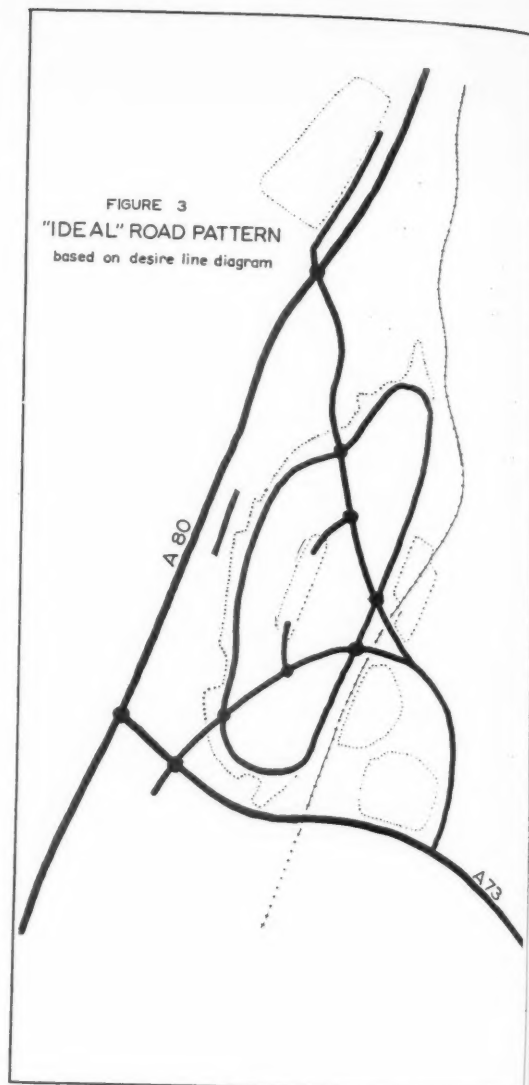
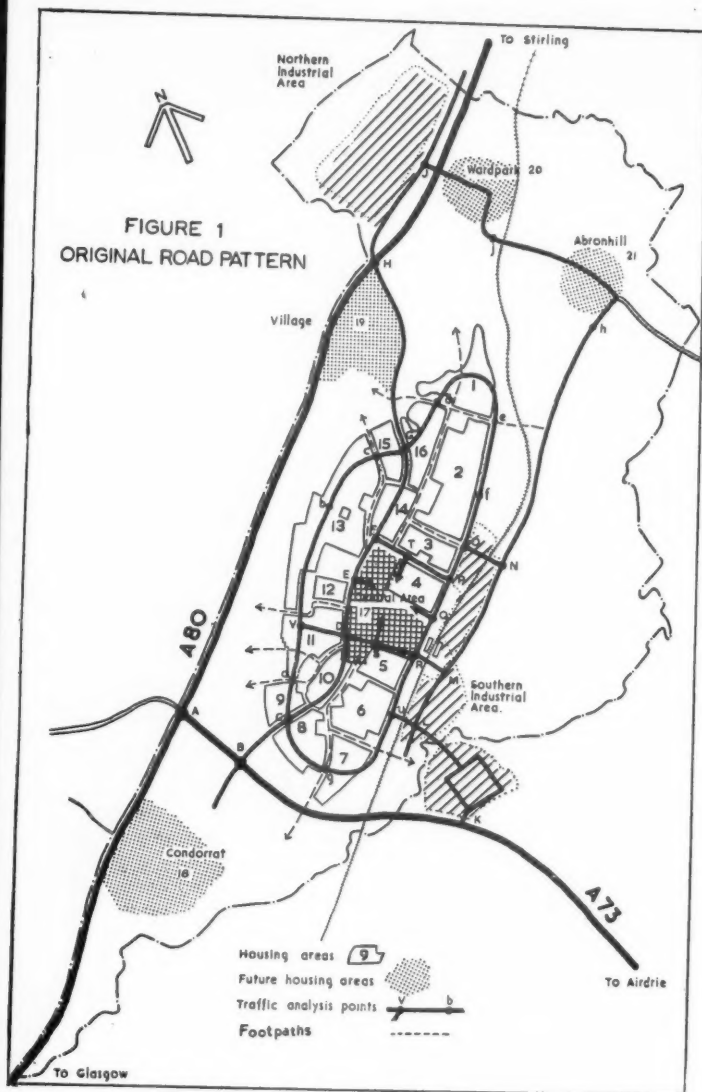
If in every town traffic projections could be carried out on lines similar to those we have adopted at Cumbernauld, and which I have described in my paper (see illustrations, pages 390-91), the results would certainly be staggering; but at least we should be getting the measure of the problems facing us in the second half of the 20th century. In coming to terms with the motor-car in the town we must not fail to recognise the rights of the pedestrian. The spaces within the town are his to use at his leisure; that is one of the basic facts of town life, the basis of urbanity. If we destroy this, we destroy our towns as places in which man can achieve a civilised existence. The motor vehicle must serve him but not dominate him. The conflicting needs of vehicles and pedestrians can only be satisfied by maximum separation and this must be achieved in all parts of the town, in the housing areas as well as in the shopping and commercial centres.

Realistic traffic projections must inevitably raise the question as to whether it is feasible within existing towns to provide for cars on the scale of, say, 1.4 per family, even with major redevelopment; in many towns exclusion of vehicles from the core may well be the only alternative to the destruction of the town.

Whether we plan to provide adequate facilities for cars or plan to keep them out of parts of our towns let us at least be positive and not just drift along. If I have devoted too much time to the question of the motor-car it is because of the problems facing us; we can do little in the field of urban renewal until they have been solved.

The Civic Trust, for instance, has been very successful in its experiments at Norwich and Burslem in achieving an improved townscape. But this cosmetic treatment is insufficient without tackling the question of traffic.

I must stress that this problem of communications can only be dealt with as part of the general process of *town planning*. Only in this way can we protect human and aesthetic values and achieve an environment in which buildings and spaces, for pedestrians and vehicles, are integrated on a comprehensive basis.





## Cumbernauld New Town

**Fig. 1:** Various patterns were considered for the town road system and the original Basic Plan included three radial roads providing connections to trunk roads A 73 and A 80. It was intended that these radial roads should be linked by an outer ring road serving most of the housing areas and an inner ring road encircling the centre to avoid congestion in that area.

**Fig. 2:** After publication of this plan a traffic analysis was undertaken to test the correctness of the assumptions in the plan and to provide a basis for the design details of the road pattern.

This analysis threw up one very major problem relating to the road proposals in and around the central area. Of the eight junctions on the inner ring road at least five would have had to provide for grade separation with designs capable of handling flows up to 4,500 vehicles per hour.

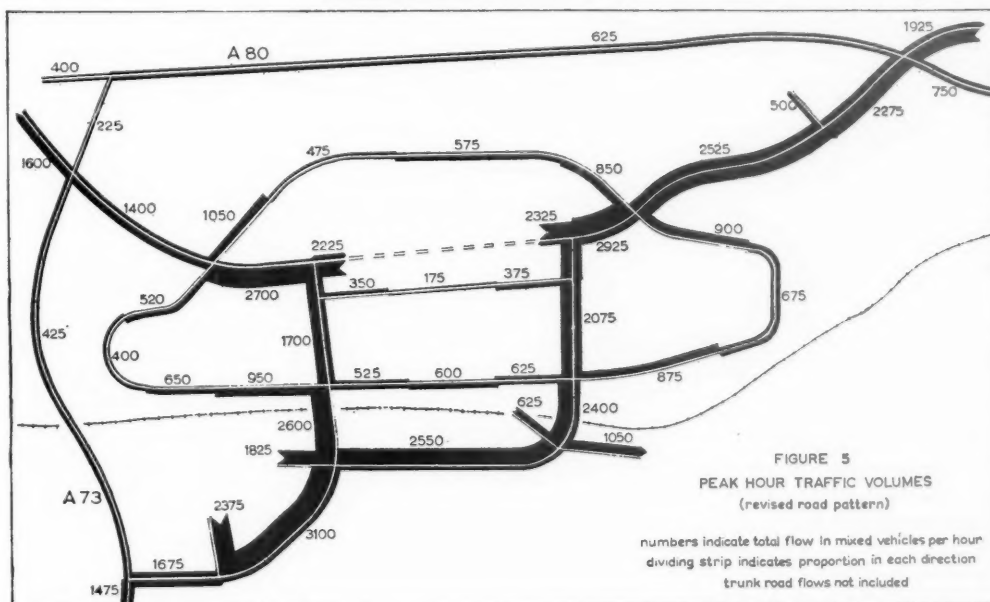
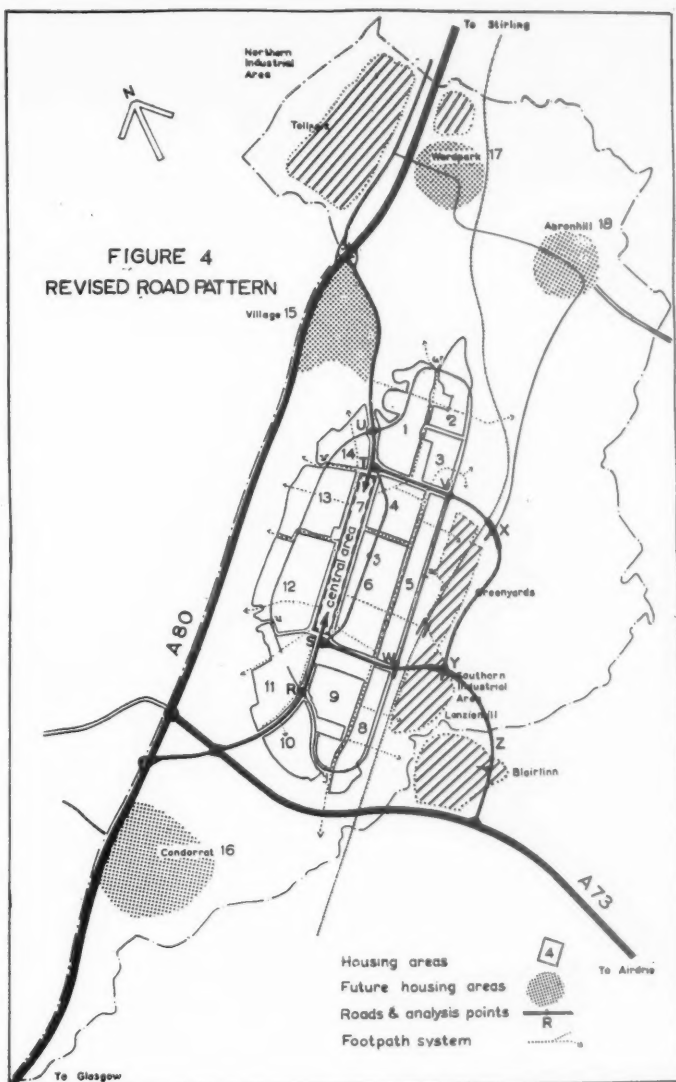
**Fig. 3:** After a study of various alternative plans one pattern was eventually suggested as forming the best basis for the road plan when considered in relation to other planning considerations.

**Fig. 4:** This was then considered in detail with reference to the comprehensive development of the whole hill-top area and a further traffic analysis prepared. The fact that the road pattern was dealt with as part of a comprehensive planning scheme for the whole town is of crucial importance.

The revised road plan incorporates three main radial roads running from the trunk roads up onto the hill-top where they are connected by radial link roads, with junctions giving access to the central area, and by a ring road. The radial link roads bypass the central area and provide major routes for local through traffic moving from one part of the town to another. Without being so conceived the radial and radial link roads have emerged as urban motorways in form in that there are no connections to them except at the junctions, which are limited in number. To ensure the maximum freedom from congestion it is important that traffic should proceed from one type of road to another in order of importance, each road being designed and constructed for its particular functions. Thus a vehicle from one of the housing areas, proceeding to a point outside the town, would use the local development road leading into the feeder road (ring road), join one of the radial roads at a major junction and so gain access to a trunk road. The major junctions have been designed on a grade separation basis, although it will be possible to carry out the work in stages.

The final road plan was evolved as part of the general planning proposals for the town after detailed consideration of lines and levels of roads and junctions and their effect on the size of school catchment areas and the layout of housing and industrial areas. Some attention was also given at this early stage to the possible position and treatment of embankments, cuttings, underpasses and bridges.

**Fig. 5:** A Revised Traffic Analysis was then prepared on the basis of the revised road proposals.



In restoring our cities to create again a civilised setting for an urban way of life I think that we should also have regard to the advantages to be gained from compact planning with higher densities, particularly in the centre, the abandonment of neighbourhood unit planning and considerable relaxation of use zoning procedures.

There have been several references recently to shortage of land and the need to build in green belt areas; a recent Ministry circular seems to suggest some relaxation of control in this direction. (I believe Manchester want to acquire some 4,000 acres of land for an overspill development for a population of 42,000.) If the principles I have put forward in my paper could be applied I believe that these problems would not arise and that we would have better towns – and better country into the bargain.

I would like to stress the advantages that could be gained from the building of new towns and of using these towns for research into various solutions to our problems; studies could be made here under ideal conditions and would be of great benefit to the whole field of urban renewal. This research must involve the government. There is a great need for the government to undertake such work at the earliest opportunity. The replanning of our cities is going to take place. The important thing is to decide whether it is going to be done as part of a comprehensive plan which faces up to the problems of this scientific age or in a piecemeal manner which leaves matters in a worse state than before. If we are to have worthwhile planning we must have a national planning policy. But at present what is happening? Where is Mr Marples' study group we heard so much about last year? I should like to think that tomorrow Sir Keith Joseph will answer some of the questions raised in these papers. If we can hear from him what the Government's attitude is to some of these problems of replanning and what the Government intends to do, this conference will have been worthwhile.

#### Mr Arthur Ling [F]

Introducing his paper, Mr Ling referred to the panoramic picture of the Manchester skyline which was part of the exhibition arranged by the Manchester Society of Architects in connection with the conference. He said:

It is rather dramatic but rather disturbing. How people can come together in cities and create such a muddle is amazing. And this does not apply only to Manchester. There are other cities where there is no discipline applied; none of the discipline to which we as architects are asked to work. This picture should be distributed to all those who have the responsibility for formulating town planning policy in this country – the Ministries, the civil servants, and local authorities. They should see this picture and not be allowed to forget it until they have approved the new techniques and procedures which are absolutely necessary if we are going to make any improvement in our towns.

We have had special legislation for dealing with the problems caused by war; we need special legislation to deal with the problems caused by peacetime blight. We seem to be drifting into a programme of urban renewal without a plan of action. We are at the beginning of an intense period of urban renewal, and unless we sort out some of our problems now we shall find energies, which might have been directed towards a drastic reshaping of our towns, will have been wasted on a series of local improvements only.

The buildings will have been renewed one by one and the old street pattern will persist, but none of the larger problems of the towns will have been solved.

Local authorities have powers for organisation and powers to carry out comprehensive development, but they have no money to finance it. Private enterprise has the funds but no powers of organisation to secure comprehensive redevelopment. One might think if the two were put together action might follow, but existing legislation does not allow it.

The 1947 Act attempted to solve the problem of compen-

sation and betterment, but its financial provisions are now thoroughly dismantled. The action of local authorities in creating green belts to restrict the sprawl of the cities has forced up land values in the city centres. It has made investors look inwards rather than outwards for their sites, but the community has made the position more difficult for itself because it has added value to the land it might wish to acquire for comprehensive development. The 1959 Act under which land has to be purchased at current market values by local authorities has put a new emphasis on the comprehensive development area procedure. Local authorities must have CDA plans; if they don't when they go to buy land they will have to pay more for it. This means that local authorities will have to look at the 1959 Act very carefully and extend the areas of comprehensive development.

I have made the point that there are few if any examples of comprehensive development in the past which have been achieved without a comprehensive ownership of land. I am convinced you won't get comprehensive redevelopment without comprehensive ownership.

If the main initiative in redevelopment is to be taken by private enterprise it is up to those who wish to redevelop the cities on this basis to answer the challenge as to how they can be redeveloped so as to express more than a desire to create profitable investment. They should really attempt to create a civilised environment as well.

It is interesting to see where the larger funds for investment are coming from. It is mainly from the banks, insurance companies, contractors and to a lesser extent local authorities and public institutions. It seems unnecessary that if there are so few sources of investment, those responsible should compete among themselves. Is there not some way in which they could form a consortium of private developers and land owners so that they could solve problems themselves without help necessarily from the local authority.

We have to remember that the money that goes to insurance companies comes from us. We insure our lives and our cars and all the other things we are frightened of breaking or losing, and we say to those who have the money 'use our money well and create fine cities with it'.

I doubt whether it is possible for private developers to secure large-scale ownership of land. I think the evidence shows that only local authorities have the means to gather together all those odd groups of land and combine them in large-scale ownership. Today local authorities need financial help at the early stages of redevelopment. Private enterprise should come in at the secondary stage and pay ground rents to local authorities. It is in that period of negotiating the acquisition of land that the local authority finds itself in financial difficulties, and I have put the suggestion forward in my paper that low interest rates or loans without interest should be available for that period of four or five years so that they are encouraged to get ahead.

They need some help at this time otherwise rates will go up and city redevelopment will become the plaything of local politics. City re-building is not being looked on as a partnership between private and public enterprise. The leasehold system of control works extremely well in Coventry where the authority has acquired the freehold interest of large areas of land and leased them to developers with the stipulation that the development must form part of the overall city plan. Since the end of the war the amount invested in building in Coventry city centre, with the exception of the cathedral, has been equally provided by the City Corporation and private enterprise. It has all been on the leasehold basis and has been an example of co-operation between private and public enterprise. I think there is as much to be said for the ownership of the town by the town as for the ownership of a home by the family. This system of freehold and leasehold ownership fits in very well with the two levels of ownership. It is a system which worked well when you had large-scale owners of land and it is a system which should continue.

The difficulty local authorities are facing today is mainly

in areas where they have no control, such as the West End of London and the centre of Manchester, outside the comprehensive development areas where the main initiative comes from private developers. Each local authority has to deal with applications on a piecemeal basis and even if the suggestions I have made for large-scale ownership of land are not acceptable I think some change in procedure is necessary at once to give local planning authorities time to consider these local development proposals as a whole in an area rather than having to deal with them one by one. I have suggested that the time for dealing with applications should be extended from the present two months period, perhaps even up to a year, and the authority should be required to prepare a plan after receiving outline proposals from the developers interested in an area.

If all the applications for development in the centre of London and Manchester were put into model form the people of those two cities would be surprised. They would hardly recognise their city. The whole of the West End of London is alive with competitive development, and out of the energy which people want to put into this development could come a brand new plan. But as it is all these schemes have to be considered individually because local authorities are placed in a difficult situation. There is an increasing tendency for local authorities not to prepare schemes but just to offer land to the highest bidder.

There should be a two-stage procedure. A three-dimensional design should be prepared and only when the scheme has been prepared should there be competitive bids. We should separate the design side from the competitive side. Good design as the Institute has shown in the field of small-scale architecture also pays in the field of large-scale architecture.

The centre of Coventry is paying in its redevelopment. We are finding it difficult to find losses for which to apply for Government grants every year. It is not just because it is a war damage area for the Council in Coventry is also pulling down buildings which were undamaged in the blitz.

Turning now to the training of architects I wonder if there are a sufficient number coming out of the schools who are able to think beyond the party wall and the site boundary. In spite of the increased interest in urban planning we seem to have separated it from architecture in our courses. We should teach them simultaneously and we should re-examine the whole basis of training. When so many redevelopment schemes are in the making it is necessary for some form of permanent architectural advice in the country. But there are 35 county boroughs without a chief architect in charge of an independent department and 23 of these are in the older industrial area where the need for urban renewal is greatest. The worst offenders in this respect are the Lancashire and Yorkshire industrial areas, where there are 15 authorities without a city architect.

I think it is important to remember that the local government commissioners are sitting and will be making recommendation for adjustments in local government boundaries, in some cases creating new county boroughs.

In the smaller authorities there is a need for a joint appointment for an architect by several authorities or the employment on a much wider scale of consultants. But these consultants should be employed on a continuous basis.

I have dealt very shortly with the technical aspects in my paper. I have listed some of them sloganwise and have not dealt with them in detail because I feel the important need at the moment is for a complete review of the legal, procedural and financial circumstances because these are determining the limits in which the technical aspects can be set.

As far as zoning plans are concerned too many people think zoning is town planning when all it consists of are double lines on paper which indicate road widening and plots between which are coloured for various purposes. You can buy special bottles of town planning ink according to what you think land should be used for. Sorting out land use is

necessary, but it is only a beginning of the whole process of three-dimensional design. It is a tragedy that so many people are content to think of zoning plans as plans for the city. It is time we threw them in the waste-paper basket and started again. We have to make our towns last 60 to 100 years and fit them to conditions we can hardly anticipate today. I think we need much more experimentation. We need some new towns which would give us scope for experiment, not being afraid of failure because if we are afraid to make mistakes we shall never experiment. We need to think about future towns on the same fantastic basis as space travel.

The motor-car has shaken people out of traditional attitude, but our legislators are still sitting inside them and reluctant to leave.

I suggest we need an urban renewal cabinet to bring together all the policy makers at Government level distributed amongst the various ministries and also to bring in representatives of independent bodies. Comprehensive planning requires comprehensive policy-making, and it is no use to have to go to various ministries for different purposes and hope we can secure a total design for an area.

There should be established an urban renewal advisory committee. This would bring together representatives of all the contributors to urban renewal. There is already a central housing advisory committee, but there is none for town planning. On this committee would sit representatives of the building industry, the technical professions, the banks, contractors and anyone else who ought to be in.

An urban renewal development team should be set up to study problems facing local authorities and this government team should be getting well ahead of the problems. An urban renewal act should be promoted. The new towns with far less difficulties have an act of their own.

I think our local societies could do much to get support for imaginative planning. I believe architects have a great social responsibility in this task and I am confident we can give the lead required.



Mr Howgrave-Graham speaking: on the extreme left, Mr Noel Tweddle

## DISCUSSION

**Mr H. S. Howgrave-Graham** [4] (Crawley Development Corporation):

We have been given a great deal to think about. This question of urban renewal is one of the most vital tasks that faces the profession generally.

Dealing with the question of car parking, which is one of the problems facing us, it seems to me that we have got to decide who should be allowed to park a car and who should pay for it. I



question whether the ratios in some areas of one car space per 250 square feet of office space are high enough. One office block where this principle was applied cannot accommodate the cars using it at present let alone those wanting to use it in future. It is obvious that car parking provision on this scale will lead to a vast wastage of land and it may well be that one of the major problems before developers will be finding money to provide car parks.

Turning to Cumberland I would quarrel with the absolute relegation to the dustbin of neighbourhood unit planning. In many areas it has been carried out very successfully, but there is a tendency to say we should discard that solution and we should adopt this solution. Obviously high densities have their place, but in some parts they are not acceptable. I envy Mr Wilson his contours.

Dealing with Mr Ling's excellent contribution, I would just put in a plea that as far as possible public ownership of large areas of land is preferable to private ownership of large-scale sections of our towns. The problems which might pile up in future from large-scale private ownership would be considerable.

Can we have some leadership from the Ministry? It does seem that the Ministry has tended to dodge back in certain directions. The regional office set up has been taken back to London and compensation and betterment has been abandoned and nothing has been put in its place. The Ministry ought to be providing the drive in the national road planning we have heard so much about.

**Mr Noel Tweddle [F]** (Civic Trust and the Society for Protection of Ancient Buildings):

I have attended a number of RIBA conferences but I have never heard a better contribution in the form of formal papers and I think they will provide a good reference for the future.

I would like to be quite clear on the scale of the problem we are tackling. So often we as architects must deal with only one site and one building and so on. Here we are not talking on that scale at all. In some ways 'rebuilding our cities' is confusing as a title for the conference. It could be described as 'rebuilding cities on a piecemeal basis'. But we are not thinking in those terms; we are thinking in terms of 20 to 100 acres or something on a much bigger scale.

I would like to put forward that under the present machinery we cannot hope to rebuild our cities. That is a rather blunt summary of what has already been said by other speakers. The reasons for this are that on the one hand we have the local authority which would be able to get hold of this land by CPO subject to Ministry approval but cannot finance the scale of development we will face. Equally, local authorities are limited under their present planning powers and I do not think the 1947 Act is able to make a major contribution to the rebuilding of our cities, much more particularly to the central areas. I am not dealing with the problems of slum clearance; I am thinking particularly of the relatively sound central areas. I do not think the Planning Act is satisfactory, therefore I support Mr Ling's suggestion that we must have three-dimensional schemes to be formally approved in lieu of the zoning maps which he rightly criticises. There is the problem of time and time is short. He has mentioned the two-months' limitation.

Finally, on the local authority side there is the split at all levels between traffic and planning responsibilities. It occurs at Government level and trickles down to the bottom. Until that split is healed I do not think we can ever rebuild our cities as we should like to see them.

We are not going to say 'Why doesn't private enterprise get ahead and do the job?' One reason for that is the fragmentation of our land ownership. Private enterprise would do the job if it could get hold of the land in suitable ways. I am reminded about the present urge for building in the green belt. If land could be made available in large chunks in the central areas the pressures on the green belts would be relieved. Because the builder cannot find land inside the cities he has got to look outside to see if he can find sites of 100 to 120 acres.

Some time ago, Mr President, you said at a meeting that the public was apathetic. I would disagree. My experience is that the public is not apathetic but that they are very much concerned, and it seems to me it is up to us to give that lead and show them the way we can rebuild our cities.

I have been an architect for a new town and the new towns could never have been built in the way we are trying to rebuild our cities. We had our New Towns Act and that made their building possible. Mr Ling is probably right in saying there should be an urban renewal act, but I would suggest that we should have a committee set up to consider urban renewal similar to the Reith Committee, which considered the new towns.

**Mr A. G. Sheppard Fidler [F]**, Vice-President RIBA (City Architect of Birmingham):

All three architects who have spoken today are really planning officers. It puts them in a special position when they are able to have responsibility for what is going on in their area as well as designing buildings. Mr Ling has pointed out the large number of authorities which have no city or borough architects. But this is the first stage for there are really few authorities in this country where the architect is also the planning officer. It is essential if architects are to make a contribution to this problem that they should be in a position to influence committees and public opinion. This job cannot be done without the collaboration of local authorities. We should certainly press for very much fuller participation in this planning work than is the case at present.

On the question of participation of private enterprise in urban renewal I think many people do not quite realise what a long, involved, complicated business this renewal of a town can be. Cities like Coventry, where the centre was bombed, had an obvious problem, but in the other cities the problem is one of blight.

In Birmingham, for example, we had five areas covering about 1,400 acres and at the moment I suppose about one-quarter has been rebuilt. It will be 10 to 15 years before this first batch of redevelopment areas will be anything like complete. Meanwhile surrounding the central area of the town are those areas of Victorian and Edwardian development which are going into decay. It is a big job and it will take local authorities a long time, and I was interested in this suggestion of Mr Ling that local authorities should purchase these areas and put them out to private enterprise. We ought to get down to doing it right away and attempt to bring private enterprise back into the field of urban renewal.

As far as the pressure on green belts is concerned there are 60,000 families in Birmingham wanting a house at the moment. The Government has refused a new town and people living in bad housing in large cities become rather impatient when they see so much building going on. The sooner we get down not to just designating one area after another every two or three years but tackling this great middle belt the sooner we will be able to give good homes to thousands of our citizens.

**Mr A. W. Cleeve Barr [A]** (Chief Architect, Ministry of Housing and Local Government):

The most important subject we have got to deal with in the next few years is that of architectural education; it is as important as salaries and fees and so on. If we have money and energies to spend during the next two or three years they should go on trying to impress local councillors and public opinion on this subject.

Some of the proposals put forward by the speakers are pretty wide and amount almost to a remodelling of our national life.

Our success is going to depend very much on public opinion and I want to see the RIBA influencing it at several levels. We must attempt to interest local people in civic affairs; it seems to me here is a new spirit in the air.

I welcome the Town Planning Institute Memorandum on this question of urban renewal. The RIBA has been extremely backward on this subject. It should go from this conference and get ahead and produce a policy of its own on urban renewal.

I am wondering whether we do not need some more permanent staff at RIBA headquarters. We have recently taken on a chief information officer who has a good background on this subject and who is doing some excellent work.

When you think of the skill in this hall surely we need some means within the RIBA of getting together material for publication and exhibition and putting it over to the Press and on the radio and extending the influence of the Institute in that direction.

## SECOND DAY

The President welcomed Sir Keith Joseph, Parliamentary Secretary to the Ministry of Housing and Local Government, and described him as 'just the man to understand what we are talking about at this conference'. Sir Keith, he said, had arrived in Manchester at 4 a.m. that morning, but he was 'already genned up' on what the conference had been talking about the previous day. Mr Spence added that architects were grateful for the Minister's decision on Piccadilly Circus and said - 'what we look for is action by the Government to create conditions in which architects and town planners can fully deploy their skill'.





Sir Keith Joseph, Bt.

The idea of urban renewal is by no means new. All dynamic societies are constantly renewing their environment as we are renewing ours at the moment at an unprecedented rate. The mere process is not what matters, it is what is renewed and how it is renewed that counts. Discussion of this problem can very easily become divorced from the economic and time factors, and it is essential these are considered simultaneously.

In the United States, where urban renewal originated, it corresponds largely to what we call 'slum clearance' over here, but it also means central area redevelopment, and redevelopment of that belt of desolate property in the twilight areas. I am taking urban renewal to mean all these things – the renewal of our towns, the renewal of our urban inheritance in all its senses.

Sir Keith then recalled items of Government Policy – encouragement to industry to start new projects in areas of high unemployment; new roads, school building, open spaces, clean air, etc. – all of which were lines of urban renewal, which he mentioned so that they would not be forgotten and to keep the problem in perspective.

After giving some figures on the progress of slum clearance, improvement of older dwellings and building of new ones, he continued:

I personally welcome the constant pressure on my Minister and on the department to speed up this process. The people who bring this pressure to bear are on our side. By slum clearance and by improvements, and by the building of hundreds of thousands of new houses during the same period, we shall be constantly renewing our environment.

Can we, or should we do more?

Here we are up against two things – the resources available and the choice of priorities. Resources are not unlimited and there are many claims to be met. First there is slum clearance, and surely we can all agree on broad social grounds that this deserves some priority. Something like 60,000 slums will be torn down this year and 150,000 people rehoused. In another two or three years many authorities will have completed their slum clearance schemes, but many others will be occupied with the task for much longer. The main burden from about 1965 will be in about 50 to 100 towns or cities which are the black areas in the country. There are many families in our big cities who although not in slums are living in bad conditions. They urgently need to be rehoused and they need homes of their own. Places must be found for them, either by building in the towns where they live or on overspill areas and in town development schemes. Then there are the claims of the elderly – a growing proportion of our population, many of them living in unsuitable conditions, and some of them occupying houses which are too large and inconvenient to manage. We need to go on building for these old people to give them the right kind of accommodation and also to secure the larger houses which they give up.

Then there is private enterprise house building. This has three great virtues – it meets a real demand; it makes no claim

on the taxpayer, though it does on the physical resources; and the extra accommodation it provides indirectly helps to meet the demand for housing. Already there is evidence of a rising – though still small – proportion of council tenants buying their own houses and making way for those who are in more need.

I hope that private enterprise will improve the quality of design and landscaping. Span, and a few other developers, have been setting a good example, but the average product is often poorly designed or not properly sited, and I believe such houses will not hold their present scarcity value as the stock of houses increases and public taste in architecture increases as it is doing.

All the time the number of households is increasing dramatically, partly because of the growth of population, partly because of smaller households, and partly because as prosperity increases need is being translated into effective demand. We must aim to keep on top and in pace with demand, so that people can be rehoused and the number of unsatisfactory and insanitary dwellings reduced.

There are three million dwellings that need modernising.

As progress is made in dealing with them, so resources can be released for dealing with the twilight areas of our towns and cities. These areas are not slums. They are areas of old and outdated houses, usually badly run down, and generally having a shabby and squalid air. Revitalising these twilight areas will take a long time; we shall have to grind away at the job of pulling down and rebuilding as the opportunity offers. The task is so great that it will call for the combined efforts of public and private enterprise on the widest possible scale. Looking ahead in the next ten years, against a background of higher income, more education, and a continued rise in housing expectation, we can expect a growing desire on the part of families in the twilight areas for better houses. The process will be helped as rentals become more real and as the number of controlled tenants dwindles, and as rents find their level according to quality, and as the total stock of dwellings grows so these twilight areas will be redeveloped.

The task should not be for local authorities alone. They need the help that some of the bigger management and capital private enterprise can provide. At present private enterprise is building on undeveloped land, but there are limits imposed by transport, green belts, and distance from work. Private enterprise will have to turn to opportunities in the cities and towns.

Is it too much to hope that developers will be forthcoming who will buy as vacancies begin to occur, hold for a time, meanwhile concentrating vacancies by means of transfers, until they have a sufficient number of empty properties to make a satisfactory redevelopment unit? Once the process has started it can continue as other properties are emptied and the families moved to new accommodation.

This kind of operation calls for foresight, development, skill and confidence. The developer can provide the first two; the local authority could help to provide the third by encouraging redevelopment projects, making loans, and by co-operating in the business of transfers and rehousing. By doing this they can get some help in meeting the housing needs of their areas, as well as in securing the physical betterment of their town and securing increased rateable values. With good will and good sense on both sides, it is not inconceivable that public and private enterprise could, to their mutual advantage, develop a partnership for the progressive rebuilding and rehabilitation of the twilight areas in the years to come.

I turn now to city centre development. With the Minister's decision on Piccadilly and with the Civic Trust conference just ahead, this is a subject on which I must walk warily. It is a subject of lively current interest and all three papers had something of great moment to say about it.

A good deal of reconstruction is in fact going on in our city centres up and down the country, although no one would claim that what is being done shows that we have solved all

our problems. Sometimes there is some lack of appreciation of what these problems are, and certainly there is a good deal of misunderstanding about the powers of local planning authorities. Under ordinary planning control, they can lay down the pattern of land uses, they can operate a plot ratio control, and they can reject particular proposals which, even though they conform to the proposed land use, do not meet their standards of design and external appearance. But that is a negative form of control; and it is a very different thing from the authority being able to say that they insist on buildings of such and such a shape, or conforming to such and such requirements, being put up. In a particularly important area it is possible for the planning authority to prepare a three-dimensional plan so as to give some indication to developers of what is likely to be acceptable in the matters of design and appearance; and the Minister has asked the London County Council to consider doing just this for Piccadilly Circus – where any plan will also have to take account of the need to reconcile the function of the Circus as a traffic intersection with its function as a place thronged by pedestrians.

If the road pattern of an area is to be completely redrawn, then it may be necessary for the planning authority to seek the Minister's approval to have it declared a comprehensive development area, which then carries certain powers for the authority to acquire the land compulsorily. If the property is in one ownership, and that of the local authority, then the authority can use its powers as a landlord to supplement its planning powers and can therefore impose a more positive solution. Public ownership may well be the only course in certain special areas, particularly where a major revision of the road lines is needed. There may also be cases, although here there is obvious ground for controversy, where small owners are preventing the creation of the sort of redevelopment units required to modern conditions and standards of layout. But there must obviously be a limit to the cases in which this comprehensive development procedure can be justified. For one thing, the resources of the local planning authorities would not permit them to prepare plans for the redevelopment of the greater part of our town centres.

It is sometimes suggested that more help should be forthcoming from the Exchequer for the redevelopment of central areas. There are good grounds for assisting the blitzed areas, and the repair and maintenance of buildings of outstanding historic or architectural interest. But I find it difficult to persuade myself that there is really a very strong case for proposing that the taxpayer should be called upon to help the ratepayer in redeveloping the most profitable parts of their towns.

Incidentally, we hear a good deal about the private developer skimming off the cream and the local authority being left to carry out the unremunerative and unprofitable development. But when one stops to consider that the two big items falling to the local authority – I am speaking here solely of the central areas – are the making of adequate provision for traffic and pedestrians, and, sometimes, providing open spaces, it seems not unreasonable that they should remain a civic responsibility.

Moreover, I do not think that it is right to tackle this problem on the basis that ownership of these areas by local authorities must become the normal pattern and the only acceptable solution. And, what seems to be important, is that it is not in the tradition of this country that the centres of each of our towns should be built according to one pattern and under the control of one architect. There may be a number of Nashes in this audience today; but I may express the personal hope, if so, that your skill will be devoted to comparatively small and selected areas where some common pattern is clearly the right solution; and that further there is still as much need as there ever has been for a variety of designs and designers.

The existing CDA procedure has been criticised on a number of grounds; it is pointed out that it usually involves

a lengthy procedure, and that the results tend to be too rigid and inflexible. Suggestions have been made that there therefore ought to be something simpler and less time consuming. I have read these criticisms carefully. But I cannot find that any very clear proposition has emerged for a new kind of procedure. If it is to be statutory, what changes in the law are to be made? If it is to be made an obligation to provide extra details, for example a three-dimensional pattern, are such new provisions likely to be any less cumbersome, less rigid and less time consuming than the existing provisions? But if the procedure is to be non-statutory, then there is nothing to stop planning authorities from preparing such plans now if they choose and providing greater opportunities for public discussion, and putting greater emphasis on civic design. I am not suggesting that there may not be a case for changing the law; what I am suggesting is that it is far from clear that any case has been made out so far for a specific amendment, and that there is a good deal more that could be done under existing powers.

There is one other point I ought to take. Where the planning authority themselves prepare a scheme for a whole area – not an area of comprehensive development – it will almost certainly be produced at a time when the authority knows very little about the requirements and purposes of some of the developers in the area; and I would again emphasise that the authority cannot dictate those requirements and those purposes. The problem of timing is indeed one of the trickiest of all.

I have already mentioned that a good deal is going on. Two striking examples of schemes for comprehensive development areas are those for the St Paul's precincts and for the Elephant and Castle.

An interesting idea, to which large conurbations are no doubt giving thought, is the SPUR suggestion of 'New Towns within Cities', of which Mr Brett recently reminded us.

Outside London, there is a long list of interesting schemes, some of them really large-scale, like Coventry and Plymouth, others still at the planning stage. I would like to make a special reference to the experience which has been gained in the new towns, and to pick out for special mention the shopping centre at Stevenage. I would also remind you that, although Mr Wilson had some rather deprecatory comments to make about development plans, it does always remain the responsibility of the local planning authority, in its development plan, to propose the basic layout – two-dimensional certainly, but showing what the road pattern is going to be and what the main land uses are.

I should like to make three more comments on city centres. The first is about the impact of traffic. To the individual a car is a desirable possession. For the community the increase in the number of cars is a welcome sign of the country's prosperity. But the centres of our cities have become greatly congested and at every crossroads there is a battle of pedestrians and vehicles.

How to cope with motor traffic has become quite crucial for the centre of our towns. This is at long last a problem that has seized the popular imagination, but I don't really know whether it has done much more than that.

Take a simply stated proposition such as making it impossible for motor vehicles to hit pedestrians. What a revolution for our cities that would mean. The Barbican scheme in the City of London represents a major attack on the problem; Coventry has separated pedestrians from vehicles in its reconstructed shopping centre; Stevenage and Cwmbran have done so in the easier circumstances of the new towns; Swindon may follow suit; and Radburn layouts have been tried here and there. But I don't think that anywhere near enough consideration has yet been given by architects and planners, or anyone else, to even this one aim, and the manifold consequences for our towns that its achievement would give.

The second is that even simple facelifting has a most important place. Properly carried out it can transform the whole atmosphere at comparatively little expense. What has

happened in Magdalen Street, Norwich, will be well known to all of you, and I need only commend it as an example of what can be done. Burslem has recently shown what can be done with less promising material in the town centre of an industrial area.

Thirdly, we do not want to see any rigid separation of land uses which will result in the city centre dying overnight when the office workers go home. The city centre must serve in part to enrich the lives of those who have to live in large communities. It is essential to this that there should be a choice of activities for leisure. That is why I welcome the return of housing to our city centres, as in the Barbican scheme. That is why I welcome the signs of evening commerce multiplying. I like the Chinese restaurant, the various coffee bars and the like; and I hope that the public house will continue its march towards the 20th century.

All this – what is now, and what is to be – is a challenge to the architect; to the holder of what I believe to be already the most difficult profession in the world; artist and businessman; specialist and humanist; cost-accountant and leader.

To create buildings that can be homes in settings that refresh; to create areas of companionship and yet of privacy; to serve these areas unobtrusively yet efficiently; and to give them meaning by a central focus of flexibility, adequacy, serenity and even beauty – is this not a daunting task?

And how can you be sure what are the social purposes and methods?

Mr Wilson yesterday condemned the neighbourhood unit and pleaded for compact urbanity. Some investigators have told us that there was an intimacy in the slums that was more life-enhancing than the hygiene on the new estates. We must hope you will design so that the possibility of good in the slums is re-created in a better physical environment.

You have to consider density; height; shape; squares; terraces; precincts.

Experiment and study are the weapons; genius cannot be waited for.

Other professions have an important contribution to offer, but the case for architects to take and be given a major part in town planning is strong. But the architects themselves must follow the maxim of Socrates and examine their own lives. Would it be fair to say that they have in recent years sometimes tended, like spectators at a football match, merely to deplore the results of what is going on without attempting to participate themselves?

And what of local authorities? All I shall say here is to echo Mr Ling's regret that there should still be large authorities without architects in charge of their building programmes. I should like to see each county borough, and each of the large district councils who benefit from the new regulations on the delegation of planning powers, with its own architect or at least making it a practice to seek the advice of architects both on individual matters of design and on questions of urban renewal as a whole. The smaller districts ought to be able to look for help to architects employed by the county.

Finally, what are the lessons for the Ministry of Housing and Local Government?

I think I have made it clear that we regard urban renewal, not as a single problem, but as a collection of different problems. It follows that the Department has several different roles. I have already spoken about what we are doing on the aspect of renewal which we regard as the most urgent, that is, slum clearance. We are encouraging authorities to push ahead with this as fast as we can, and we are helping it with the subsidy which we pay on each new house or flat which is built to replace a slum and also on houses in the overspill schemes which are often a consequence of slum clearance. I have also mentioned what we are doing with improvement grants.

As far as central areas are concerned, we conceive it as our duty to try to ensure that the best and most up-to-date advice is available to local planning authorities. One method of achieving this is constant contact between our own technical

officers and those of local authorities embarking on schemes of renewal.

We are also making it our business to find out about the schemes already carried out or in progress, and to disseminate information about them and about the difficulties which have been met and surmounted – or which have not yet been surmounted. We hope in this way to pass on to authorities generally the lessons which have been learnt by the pioneers, in the field of planning technique and also that of estate management. We shall be studying, too, questions such as those raised yesterday by Mr Ling and Mr Wilson about the adequacy of existing powers and procedures, and about how methods of presentation can be improved.

We have set up our own small research unit for this purpose. With that unit we intend later on to carry out some practical experiments on the ground to acquaint ourselves more directly with the practical difficulties. We accept what Mr Wilson said about the fertility of the architect-administrator team – especially when it contains a rare character such as David Nenck was – and we are applying this in our own organisation.

But our resources are limited and progress will not be startling in its scope or speed. We can hope to make an attack only on some aspects of these problems. But the answer is not in the hands of the Government or of local authorities alone. We shall provide all the encouragement and practical help which we can, but it is only by constant research and experiment on the part of all concerned that progress can be made.

## QUESTIONS TO THE PANEL

Following Sir Keith Joseph's address, a list of questions was put to a panel, of which the members were: Dr T. E. H. Williams, MSc, PhD, AMICE, AMI STRUCT E, Senior Lecturer in highway and traffic engineering at King's College, University of Durham; Sir Keith Joseph, Mr W. G. Webb, FRICS, Deputy Chief Valuer to the London County Council; and Dr A. H. Marshall, CBE, PhD, City Treasurer of Coventry. The questions had been prepared at the previous day's study group, and they were put to the panel by the President.

### Question One

*The conference speakers yesterday, and the study group which met yesterday afternoon, clearly expressed the sense of urgency that many architects and planners feel. It has been said that if development is allowed to continue piecemeal, to an out-of-date pattern for five or ten more years, it will be almost impossible to change the basic town plan. Does the panel agree about the urgency, and what does it consider the most important immediate action to be taken? Does it favour such proposals as urban renewal advisory committee, or an urban renewal act?*

**Mr Webb:** I am not entirely certain that any new legislation is required, but I am certain there are a number of practical problems which need to be solved in terms of acquisition of land, in terms of management, and also on public ownership and the leasing of land to developers. These are all problems, I think, which do not need legislation but do need elucidation and I do think some form of advisory committee would be most useful. There was a similar sort of committee to deal with blitzed areas, and it would seem to be a sensible suggestion to bring it up to date to deal with the blighted areas.

**Dr Marshall:** I think people of all professions would agree that this great problem needs urgent attention if we are to dispose of these legacies of the industrial revolution. This is not a simple problem, because what is called urban renewal impinges on many services and activities. I think everything should be done to establish committees at national and local level to look into the problems involved. It should not be beyond the capacity of architects to get out a local scheme, and for this scheme to be regarded locally as having one of the great claims on the budget.



**Dr Williams:** My experience in Newcastle has proved to me that all the professionals have something to offer. I appear here in my capacity as a civil engineer who has specialised for some years in traffic engineering. As far as the difficult decisions required by this problem of urban renewal are concerned, they are a little outside my scope. But this common interest in these problems and in trying to provide adequate roads for present and future needs does focus attention on the need for a comprehensive attack on the problem. Mr Bennett has said that the pattern of the road layout should be firmly crystallised before planning begins. This emphasises the need for traffic engineering studies. The need of all the professions to gain basic information simply stresses the fact that we possess totally inadequate information about what really does happen inside our urban conurbations. We have no idea of what should be the driver's choice of route and what decides the purpose of a journey. We need comprehensive thinking to deal with this great problem.

**Sir Keith Joseph:** I am going to throw the responsibility on the other side. I think the initiative lies with planning authorities and with us at the Ministry in our study group. I can assure you that any suggestions which emerge about necessary changes in the law are given the most serious and detailed study.

#### Question Two

*The techniques of urban renewal and city design today require the development of very large areas of land within a single ownership or control. How does the panel consider that this could be achieved, and what solutions can it offer for the problem of compensation and betterment?*

**Mr Webb:** The last part of that question on compensation and betterment is the 64,000 dollar question. There was a Government policy in the Town and Country Planning Act 1947, which produced one answer; there have been successive planning acts which have produced yet other answers, and broadly speaking at the moment we have not solved the problem of betterment, we have just abandoned it, with one slight exception which is not always realised. Sir Keith will forgive me mentioning it. The 1959 Act does secure a form of 'betterment' in terms of 'set-off'. If land is acquired from an owner by a public authority and other adjoining land is retained by the owner, and if that adjoining land is enhanced in value by the operations of the public authority, then the compensation to be paid to the owner is reduced by the amount of that increase. In other words in this limited class of case, the betterment is 'set-off' against the compensation. It is not always realised.

Inherent in this question as a whole is the belief that central area redevelopment necessarily means that land values rise. I doubt whether that will always occur! It has occurred in some places, and I hope it will occur in others. But if you take the centre of a very highly developed city in the prosperous conditions of today and want to lay it out afresh, what you have to do next after acquiring all your property, which means acquiring a multiplicity of interests, and getting public ownership of the land and property is to destroy a substantial part of the asset. You have to destroy the bricks and mortar, and you lose on that before you start afresh and create a new asset. I am not convinced that always the new asset is any greater than the old in terms of sheer land values, although of course it will be in terms of planning, and in terms of social convenience. I accept at once that we shall get better conditions, but in terms purely of land values I am not convinced.

**Dr Marshall:** I see it as a need for trying different methods. What distresses me about local government is that we expect everything should happen on an appointed day, usually 1 April. I can see tremendous advantages in local authority ownership of land, but I can also see it as not always practical

and I can imagine that some of these schemes being tried out in the city of London, where owners have got together and promoted companies for joint ownership of land have quite a future before them, especially in areas where land is very expensive. It does seem to me that when you have taken land into public ownership you have solved forever this problem of betterment and compensation. From the financial point of view, the great thing about land ownership is that the local authority does not get the worst of the bargain.

**Sir Keith Joseph:** I have dealt with public ownership in what I said. As far as I am concerned there is nothing to stop local authorities negotiating some special form of loan when they borrow money. There are such powers in local acts and general powers for the Minister to approve some form of negotiation if he thinks the procedure too expensive.

**Dr Marshall:** These powers do exist and are only applied in exceptional cases. The first big block of buildings we put up in Coventry was erected by the city. It was at a time when building materials were very scarce, and it is surprising how long the architects can make a period of construction. It was some years before the building was completed, and we got over this trouble with the Ministry's agreement by exercising these powers.

#### Question Three

*Attention has been focussed at the conference and in the study group on the Ministry of Transport, which it has been said does not know what to do with the traffic and is lagging behind in road planning. Does the panel agree, and how does it consider that road planning can best be integrated with regional and town planning?*

**Dr Williams:** As far as the position in Newcastle is concerned we were hampered by a lack of basic information. I think the Minister's efforts in setting up a London Traffic Committee is some indication of the way in which all provincial towns and the great conurbations will have to come round to thinking in terms of transportation as a whole. It should not be left to one individual or single department; it is too complex a problem. We must start as soon as possible and be prepared to spend money in setting up study groups - full-time professional men - to collect basic data, analyse it, and present it so that it can be made good use of in comprehensive planning. This should be going ahead now. It is a sorry state of affairs that one should have to rely on voluntary information submitted to public inquiries. It should not be left to such bodies. There is too much at stake, and we certainly require some basic data. A single profession can't tackle this; we require the architect-planner, the engineer, the economist and the valuer because each one has his part to play. My experience in the past two years has proved this to be the case. Essentially it is a matter of compromise. I don't think we shall ever be able to defeat this problem, it is simply a matter of trying to fit in the best form of solution that meets the needs of the population generally. I certainly agree that the sooner we collect the data the sooner we shall know what we want to do about providing major arteries which will canalise traffic and keep it away from the pedestrian precinct. Let us make these plans as early as possible.

**Mr Webb:** I couldn't agree more. In London we have recently received the report of the London Roads Committee under the chairmanship of Sir Richard Nugent, formerly Parliamentary Secretary to the Ministry of Transport. This was a joint Committee of the Ministry of Transport and the LCC and most of the professions were represented, including valuers. The committee advised a practical programme - it could be £6 millions, or a £10 millions a year programme, dependent on the funds available. From my own point of view I can't stress too highly the importance of a forward programme in urban centres. When building new roads or



widening existing ones you have to buy property and clear existing buildings, and the whole process of acquisition and clearance may take anything up to five years to do. You can't start today and expect your new road tomorrow. You should be planning today, preparing today, devising your Compulsory Purchase Order today for the new roads you hope to have five years ahead. A forward programme is a 'must'!

#### Question Four

*It was said at the study group that green belts were finished unless action was taken to relieve the pressure on them, by a continuous policy of building new towns and renewing old ones. What are the views of the panel?*

**Sir Keith Joseph:** I am delighted to have this opportunity to reply to the completely unfounded publicity by certain respectable architectural journals – and even the *Guardian* – to the idea that the green belt policy is being weakened in any way. There is absolutely no ground for such fear (applause). The green belt policy can only be useful if there are places where people can build, and that is why the expanded towns policy is giving a new lease of life to several areas.

This policy is an important one. As for new towns, my Minister has already declared publicly that the idea of new towns is not necessarily to be excluded. I would also remind you that green belts are only established green belts when they have been to my Minister and have been confirmed. It is these on which any pressure will cause no difficulty. Naturally, there is bound to be the odd building within the green belt for national purposes. I have in mind such things as the odd school or institution that need that type of surrounding. The green belt has to be looked at with common sense. There may be here and there the odd field surrounded by existing development where the boundary might have to be redrawn. These are a trivial proportion of the whole policy, which is not in any danger at all and which is firmly held.

**Mr Webb:** The Town Development Act procedure was devised primarily to take 'overspill' from our big cities by expanding existing country towns. But it is doing wonderful things almost by accident in revitalising those old towns. It is doing the things this conference has been so interested in. There were towns in East Anglia which were dying on their feet, and now, with the help of the London County Council, these towns are taking on a new lease of life.

#### Question Five

*The study group felt strongly that the older industrial towns which are not attracting developers and are decaying should not be left to rot, but require energetic Government assistance. What are the views of the panel?*

**Dr Marshall:** Sir Keith would be disappointed if he was not told that there was a great need for a new grant. I believe in some areas there will be operations which will not be economic, they will not be remunerative, even if the local authority is fully alive and takes advantage of more remunerative forms of development. I hope there will be some grants from public funds, and I hope there will be a sharing between local authorities and the Government. A very good basis has been worked out for dealing with blitzed areas in this respect, and we have a lot of experience of grants in this country; more than in any other country in the world.

**Sir Keith Joseph:** These are the areas which already get a large share of the rate deficiency grant, but I believe there may be a case for some fresh examination of their needs. This is just the sort of inquiry that urban renewal study group will be thinking about in discussion with the people on the ground.

## SUMMING UP

**Sir Thomas Bennett, KBE [F]**

This is an attempt to summarise the discussion on the papers and the study group up to this point. So far, it looks as though the members have divided this subject of urban renewal into three groups.

The first is the redevelopment of town centres. This is normally economically sound and it produces a profit and is actually subject to a good deal of pressure from inside the central areas, very often because shopkeepers want to rebuild and bring their premises up to date. But it is a process where there are very serious obstacles in the way initially because of the extraordinary lack of knowledge which has been produced from the Ministry of Transport. It has been the experience of planners in town centres that they have no idea of the future of road widening schemes or what traffic junctions there are going to be, and one can't get any information. This delay goes on for months and even years. The Ministry of Transport is hopelessly behind its job and unless it produces its information much earlier and in a much more definite manner, it is going to continue to hamper planning.

In the majority of town centres the pattern that has grown up is no longer applicable, and it is necessary to do a good deal of comprehensive planning to adjust the shape of the streets and the size of squares. We see in the problem the difficulty of comprehensive ownership. We accept Sir Keith's comments that this is not just a question of the public authority or the Government owning large quantities of land or attempting to use large sums of money to provide it. Monopolies either by the State or by private enterprise may have disadvantages in the long run, but comprehensive ownership in some form is quite essential; but this is a grave problem for which we do not see a simple solution.

We quite accept the fact that the wholesale distribution of Compulsory Purchase Orders is probably undesirable, practically impossible, and in any case it involves the provision of large sums of money to which the Chancellor of the Exchequer may raise objections.

We are fully conscious as businessmen and architects that these difficulties exist, but in spite of them there must be a solution to this problem of comprehensive ownership, and I would suggest it as a subject for study by the Ministry. It is a pity that the Ministry does not contain a Ministry of Planning somewhere in its title. In the long run everyone gains by planning, and there might be some advantage in having a Minister with the word 'planning' in his title.

We think the second group of problems lies in the twilight areas. We realise there are many properties which could continue to have useful life, but that is not the essential problem of these areas. The essential problem is that they are laid out to a bad pattern, the properties are appallingly close together and in some of the towns are hopelessly impossible. It is not a question of waiting for the moment to arrive before we renew them on the same sites. We are no longer satisfied with the grid pattern of our roads. We realise also the point Sir Keith made about the building industry and the architects being full of work, but there must be a scale of priorities and even if the Ministry, and the architects and the surveyors and the other interests involved were to begin at this moment to study the question of how you can reasonably replan the bad twilight area, it would still only have its programme in order by the time the building industry was ready to receive it.

This is a question of intelligently applying our present ideas of living to an area which belongs to another age. It not only applies to London, it applies equally to the provincial cities. These areas exist in the Manchesters, the Liverpools, the Leeds, Hulls and Sheffield, and the major towns which grew up in the industrial revolutionary period of the last century, and each of them requires some kind of study which must be directed by some kind of principle which must be evolved by the department concerned.

There is a third category presenting a most difficult problem. This category contains the towns which are 'scabs' on the countryside; the frightful towns of the Potteries and the coal-mining areas, and some of the cotton towns. These are towns which are appalling places in which to live visually and from every other point of view. There are other towns which are dying, which can't claim to have a bright future, and where new buildings will only attract new tenants if the towns are included in one of the expanded town programmes in which definite efforts are made to get more industry into the town.

One speaker has made some reference to the possibility that you could share the profits and losses of development in the central areas and in the twilight areas. We all know there are towns in which the centre is being redeveloped, and where there are new houses being built on the outskirts, leaving these areas in the middle where the problems are insoluble.

The Ministry of Transport deals with roads, the Board of Trade deals with industry, issuing certificates haphazardly without any regard to planning. They deal with different things which ought to be brought into the planning field. We must definitely extend the title of the Ministry of Housing and Local Government to include the word 'planning' somewhere. The Ministry could then have a bigger say in the actions of the Transport Ministry and the Board of Trade and endeavour to make it one picture instead of three or four, with some measure of economics included in it.

Towards this end we need to enumerate much more accurately the headings under which problems are studied. We think there should be some committee of inquiry which should have the confidence of the public by publicity, and which should generate a real desire to deal with this job of urban renewal which is being done at present in such a piecemeal fashion.

We are a profession with imagination, and we think the job should be done properly. We realise that the total national expenditure on it is a sum of money which can't be conceived and that the building industry is faced with work such as factories and hospitals and houses. But you must realise that long before the builders are ready to begin there are many problems to be studied so that a programme can be prepared for them. This is urgent, although we are thinking in terms of five or ten years ahead. We think the public tends not to realise all these problems unless the Ministers concerned tell them. There are many side issues, not the least of which is synchronisation. Then there are the problems created by traffic, and these are still without a solution.

All these things are the questions of urban renewal and they must not be thought of in a vacuum. They are urgent questions, and unless some kind of body is set up to inquire into them, we can't see either public or private enterprise solving them in any number of years, let alone five or ten.

## DISCUSSION

**Mr D. Rigby Childs** [4] (London):

If one reads Mr Allen's paper of last March on 'The profession in contemporary society', together with these conference papers, it becomes quite clear that our primary responsibility is a dual one - for design of buildings and of environment. Up to date, the profession's bias, as represented by the activities of the Institute, has been heavily in favour of the problems of building, design, science and technology.

As brought out at the annual general meeting, this lack of balance is reflected in Committee activities up to date. The tragic divorce we have had since 1947 or so between so many architects and town planners can be made up perhaps, if the architect's role in urban renewal, for instance, is conceived in terms of building designer and environmental designer.

It is very likely that it has been the profession's half-hearted interest in the wider problems of planning that has led to the present absence of strategy in so much current town planning policy. We are at the beginning of a new phase in town development and this profession has a chance of showing its calibre. In the next

year, led by the Institute, the profession should clarify its ideas on environment. It should stimulate and bring together new ideas on town design. It should promote the study of the anatomy of towns. It should assess what measures are needed to stimulate a greater understanding of why some environments are vital, and why some are not.

What is wanted is to create environments of many kinds. The Institute should encourage training in environmental design. It should contribute to an assessment of target standards to guide town building. It should publish through the JOURNAL a constant flow of information on environmental design.

Some of these points go beyond the realm of architecture simple. Unless, however, the profession tackles these wider problems it will not be justified in advocating changes in other directions.

The importance of this lead is that it is becoming increasingly clear that in time our work as a profession will be judged equally for the buildings it produces as well as for its influence in creating a vital environment whether in towns renewed, rehabilitated, patched up, new towns, or extended towns or in the country.

If the architect's role in the urban renewal team is primarily an extension of his responsibilities for individual buildings into the field of complete environment, as has occurred in the new towns, it is imperative that the profession as a body keeps a separate standing watch on the wider aspects of regional and town and country planning.

**Lt-Col. Lesslie K. Watson, MBE** [F] (London):

In the study group yesterday we were told that Sir Keith Joseph was familiar with most of the problems; what he wanted was suggestions for their solution. I made a list of various items, but you will be glad to know that I have crossed quite a number off because they have already been dealt with.

It is necessary to have a new Ministry, and this has already been stressed by other people, but it might be called the Ministry of Planning and Redevelopment. I think the word 'redevelopment' needs to be included in the title to catch the public imagination.

Sir Keith said he was not convinced any new planning procedure was necessary. He said there is nothing to stop a local authority doing what is required. There are some enlightened local councils which take proper technical advice. But in the majority of cases local authorities haven't a clue how to set about redevelopment of their towns and they are easy prey to the development companies that come along, and which are making hay while the sun shines.

I raised the subject of green belts in the discussion group and I am sure we are all delighted to hear Sir Keith Joseph say they are not in any danger. It must be difficult for him at the centre, surrounded by efficient people, getting news every day of big schemes, to appreciate the view of the rank and file. I live in Bucks, where a proposal to extend the green belt was made. The inquiry was held nearly two years ago and it was evident then that the proposals for the green belt might or might not get through. If they are not confirmed, the position will be very serious indeed. We still await the result of the inquiry.

The Ministry could help itself and everyone else by making quick decisions after these inquiries. Two years is far too long, and that is what is causing all the trouble.

The immediate answer seems to be more new towns, but Sir Keith said something like 'the Minister has not ruled out the possibility of further new towns'. That is very discouraging. We have some very fine teams, who are experienced in building new towns under novel conditions and have achieved great successes. They are now being dispersed, which is a grave waste of technical ability.

The Town Development Act, although it has worked in certain cases, is generally not a success and very few people could be found to defend it.

On the question of money, I should like to suggest that if it is made available for redevelopment there should be a string attached so that none would be forthcoming unless the Ministry was satisfied that adequate technical advice was being taken and a three-dimensional scheme was being prepared, not just a coloured plan.

Sir Keith suggested that private developers might buy up small parcels of land as it came available and wait to redevelop it. That is not attractive to them, they want a big area at first, and want it ready for building right away.

We haven't mentioned the general public, and they are very browned off with town planning. Nobody takes the trouble to explain it to them. Local authorities can be very secretive and often refuse to co-operate with local civic groups. Something has to be done about that and it wants more than mere directives; it wants a good push from the top.

Sometimes it is suggested there is a shortage of trained architect planners. I would like to tell Sir Keith that in the last number of the *Town Planning Institute Journal* there were two articles by private practitioners pointing out that very soon there will be none of their kind left. The present set-up cuts out work by private practitioners, and that is a great waste of skilled talent.

**Mr J. E. Tyrrell [F] (Gosport):**

The conflict between local authority planning and private enterprise planning seems to make it necessary that we introduce some new legislation or change the existing laws. The normal procedure is that as land becomes available to the local authority it has to think about providing open sites and providing for the community, whereas all private enterprise has to think about is 'how many houses can we get on it?' A change of law is necessary so that private enterprise plays a proper part in redevelopment.

My second point deals with transport. In some small places I am confident the answer to the road problem lies in multi-storey garages and a much greater leadership should be given by the Ministry in the form of help or subsidies which would enable local authorities to include these garages in their programmes early, rather than go on rebuilding their towns only to find they have not got room for these garages later.

**Mr F. W. Davey (Stepney):**

There should be sense of urgency now about the redevelopment of these twilight areas, and it should be going on at the same time as this other development. I stress the urgency of the problem; that it must be dealt with now and that it must not have to wait until these other areas are redeveloped.

**Mr J. L. Berbiers [F] (City Architect, Canterbury):**

We have heard a great deal about urban renewal at this conference, but I do feel that throughout the country in this process of renewal we are creating new slums. This is a very vital aspect of the whole problem; we are creating hygienic slums which provide the necessary space around dwellings, but which are completely devoid of any character and which are depressing in the extreme. There are vast areas of development of this kind in a great number of towns throughout the country.

They are all the more demoralising in their effect because they are presumably done according to a plan of some description. They provide all the necessary standards of daylighting and everything else, but they are devoid of character and dull in their design. I feel urban renewal should take into consideration the fact that we are not necessarily improving our towns by urban renewal. At this stage this is a very essential and important aspect of the problem.

**Sir Thomas Bennett:**

I would like to put it to Sir Keith that if street parking were banned, private enterprise would build all the multi-storey garages needed. This thing would be possible if it were given as a firm Government decision in a number of areas; say that some streets would be banned in three years' time completely, and a number in five years. If that were firm Government policy, I have no doubt that private enterprise could build all the garages needed. If Public Works Loan Board loans were made available at the current rate of interest with redemption in 20 years instead of 60 years this would help to tackle the problem of providing these garages. But I think it could be solved in six or seven years.

**Sir Keith Joseph:**

Without going into this question too deeply, the object of parking meters coupled with the powers given to local authorities to see that garages are erected has this sort of purpose in mind.

**Mr B. Bunch [A] (Northampton):**

In my own town the traffic congestion is really beginning to hurt. It is like a disease where the first symptoms are just beginning to show. I am pleased to say our own council has recently set up a committee to study the question of traffic congestion. They had their first meeting only a few days ago and I was delighted that instead of rushing immediately to build a car park or get a piece of ground to build a car park, they decided to study the whole problem. They have started off deciding what sort of town they want. I do think that as congestion gets worse in the town we have the chance to say 'the choice is in your own hands. You can either have a nice town or a chaotic mess.' I think we ought to talk to people just as much as we ought to appeal to Ministers.

**Dr Williams:**

I could not agree more with the previous speaker about this matter of studying the problem in total. Let us beware of a haphazard collection of multi-storey garages without appreciating what the effects could be on a development scheme. Even a comprehensive type of highway system might be defeated completely by haphazard erection of these garages. You must place them in a position where they will be used to capacity and provide worthwhile investment.

**Mr C. H. Elsom [F] (London):**

I should like to know how many green belts there are and how many have been approved. I have an awful feeling that the answer to the last question is only two.

**Sir Keith Joseph:**

I do not know offhand the number of confirmed green belts, but there is a dangerous implication in this. As soon as a green belt proposal is made to the Minister it is treated from the planning point of view as a confirmed green belt until such time as the decision is given by the Minister. During the period it is being considered all planning applications to build in that area are treated - for that period at any rate - as if the green belt had been confirmed. It would be totally unfair to judge the Minister's policy on green belts by what is happening during the tentative stages of a proposal working its way through the planning machinery and which has not been submitted to him. When a green belt is confirmed, and during the time it is being considered, it is as near as can be sacred.

**Mr Arthur Ling:**

I want to express my appreciation of Sir Keith Joseph's reaction to our papers and discussion. I feel he wants to come in with us just as we want to go in with him in thinking over these problems. We want to assure him that we are not attacking anyone, we are here to discuss the problems, and if we can help him to solve his problems it will have been worthwhile.

I must return to the point that if we are going to get the scale of operations necessary in these older centres and twilight areas, the local authority is the only organisation that has the powers to acquire land and get it into single ownership.

If the private developer could do it I would be happy to see it done that way, but I believe that only the local authorities have that power. If they are going to do it on that scale it means pouring a lot of money into it. That raises a question of increasing rates, and of party politics. If this problem of urban renewal could be taken out of politics it would be a tremendous help. It would mean that a local authority could buy land for comprehensive development without it becoming an issue at the local elections. If we could get agreement between all shades of political opinion on this question of urban renewal, we should be getting somewhere.

As regards legislation, I think you have a lot of legislation for urban renewal, but the trouble is that it is broken up into bits and pieces in various Acts. That is something I suggest Sir Keith might care to look into. It would be particularly helpful if housing subsidies could be thought about again in relation to these twilight areas.

In Coventry progress has been extremely slow because of all the difficulties and I worked it out the other day that at the present rate of progress it would take 320 years to complete our two residential areas. I would like to see the financial arrangements under the Housing Acts, and grants for roads and open spaces, related to new legislation for dealing with urban renewal, particularly in comprehensive areas of this kind.

**Mr H. S. Howgrave-Graham:**

In his brilliant address this morning, Sir Keith referred to face-lifts. They can do a tremendous amount and any town could start them in a small way with relatively small expenditure. They can produce, by careful painting and by co-operation, an entirely new look.

Every county council and borough council should have a landscape architect on their staffs; that would prevent the waste of trees and the spoiling of land. The county council could make their landscaping advice available to the smaller authorities in their area.

We come finally to the town map. The town map at present is a sorry looking object with some hatching and some cyphers which can be decoded, but it does not begin to be the sort of



document you could put in the town hall and get people to be enthusiastic about.

On the question of priorities. Many local authority plans involve the Ministry of Transport and Government expenditure. I do not know any arrangements in force which really lay down priorities. That should come from the Ministry, with the Ministry of Transport working alongside.

**Sir William Holford [F]:**

In addition to comprehensive development there is also such a thing as comprehensive muddle. After listening to so many different points of view about so many different things, I had listed 15 points about new procedure and new legislation. But as I do not want to accentuate the muddle, I am going to mention only three of them.

When there is an area which is obviously of special interest to citizens and councillors, it is not reasonable that some developer or promoter should be able to come along and ask immediately for a decision on his application. He may intend to develop it in some way quite different to what the local authority wants. So there should be a moratorium on decisions for these special areas.

Secondly, the public has rights and interests in this business. We cannot always give publicity to schemes in the early stages, but when it is obvious that an area is of special interest to a town it does seem to me that the Minister should lend his weight – I will not put it stronger than that – to the local authority and say 'This is an area where there is a great degree of public interest and where I should support you if you issued pretty stringent conditions on its development.'

I think a local authority should be entitled to say to the man putting in an application, 'This is an area where we want to be certain you have first class technical advice and that when you put up a building in this area it is going to have regard to the long term as well as the short-term possibilities of the site.'

The Ministry should lend its support to a local authority that is anxious to make a good all-round scheme out of one which is put up in the first place by an individual developer.

Thirdly, on transport. It seems absolutely inevitable that we shall have to consider more variations in level. We have to consider how some help is to be given in providing access up to and down from the public roads. The Ministry of Transport has said 'We are not interested in providing grant for minor roads or pedestrian precincts, we are sticking to the roads.' It would be very much better if they would regard roads as not for vehicles only, but as transport machinery, and thus include in their machinery every kind of access to these roads.

Before ten years are up we shall have to think about escalators, even moving pavements in difficult places. That seems to be part of the transport system. It will be up to the Ministry of Transport to make sure that pedestrians get up to and down from pedestrian ways. I hope we shall table these points so that in future discussions of this subject they can be added to the list.

**The President:** It has been a very good discussion, and I will call on Max Fry to sum up.

## SUMMING UP

**Mr E. Maxwell Fry, CBE [F]:**

This is the last speech of the conference, and I will make it short. I have two duties to perform. One is to thank the speakers, first those of yesterday – Hubert Bennett, Hugh Wilson, and Arthur Ling – and the speakers today. Thank you, Sir Keith Joseph, and the members of the panel, especially Mr Williams, who sat in at such short notice to fill the place left by the untimely death of Mr Gibbs, of Cumbernauld. Then Sir Thomas Bennett is to be thanked for his contribution. We also owe a great debt of gratitude to Mr Allen, chairman of the conference, and to Mr Williams, the chief clerk, for making this conference such a success.

I am going to speak not only about what has been said in the discussion, but also what I feel is in our hearts in coming here as architects to debate this burning subject and put forward our views.

This small country of ours is fully occupied; there is no spare land; there is no unusable land. It must be regarded as one would regard a precious garden of limited extent which we could bring to perfection with skill and care and comprehensive treatment. For no gardener will deny that a comprehensive plan is what makes the beauty of a garden.

Indeed, we are now facing the problem of what to do with the bad old towns of the 19th century, the relics of our past and the sins of our great-grandfathers. And we reject the ideas of the 19th century. We reject these bad old towns, and in the name of the



Mr E. Maxwell Fry

comprehensiveness that has run like a fire through this conference, we set ourselves in this new century to a new way of doing things. It is a rejection of the *laissez faire* of the past, and it is a rejection of the piecemeal idea.

We are enormously glad to have Sir Keith Joseph with us, but perhaps we are looking to his colleagues, for there are other Ministries dealing with other aspects of town planning. In our dealings even with town planning we have, in the past, lacked comprehension, and it is that more than anything else that we architects are looking for so that we can get on and deal with these problems.

We are worth listening to because we know we cannot produce works of architecture until we have a clear programme. The programme we have for the work of urban renewal in this limited island is too fragmentary to enable us to do it really well. The Ministry of Transport has its own policy, a second Ministry has another policy, and we are falling between these different policies and losing time desperately. The moment is in fact critical because it takes us so long to think about these problems which are many sided. We have got to co-operate with others in order to bring this programme of urban renewal into being. We need teamwork, but we realise as architects that we must clear the decks first.

If we have any practical recommendation to make it is that there should be a Royal Commission of inquiry into the basis of doing this job, with the hope that it will be able to tell us what is preventing us from doing this job and that it will propose some unified machinery from the Government soon that will allow really comprehensive research followed by really comprehensive action.

That I think would be the practical thing we would ask for, quite apart from any small amelioration of one sort or another. We have made our demands as architects clearly enough not for me to have to go over them again.

As architects coming to this conference we have this great desire to see the problem of the 20th century as clearing up our past, not only for our own renewal, and that is important enough, but because we have a right as English people to better and improve our conditions of living in our own country. That, I think, in general terms covers what this conference is about, and we are extremely glad we have the Minister's representative here to be able to put these views to him.

**The President,** after thanking all who had taken part in the discussion and those who had presented papers, made a special appeal to members to support the IUA Congress next year. 'It is most important', he said, 'that everyone here takes back this idea and spreads it because we are going to be hosts for a great many nations and a great number of architects. We must give this our support; we have been guests in other countries and have been treated in a most generous and friendly way. It is only right and proper that we should do something for people who have done it for us in the past.'



# The Conference Dinner

Extracts from the speeches

**Professor W. Mansfield Cooper, LL.M (Vice-Chancellor of Manchester University):**

The differences which divide the professions are far fewer than the bonds which unite them. I believe the commonest bond of all today among the particular associations, from the most elevated of the professions to the most lowly of the trade unions, is their belief in education.

There are those who still believe that a university has fulfilled the whole of its function if it produces a tiny knot of scholars who will secure its perpetuity tomorrow. Though few of us would accept so extreme a view, all of us would agree that unless a university can do that it fails in its duty, and I suspect that also would be true of the RIBA. You are concerned in your institution and in its allied societies with the standards and the standing of your profession. You are concerned with problems of behaviour among architects and between architects and the general public. You face, as so many of us do, the problem of reconciling public service with individual freedom; the problem of reconciling the right of the client and the duties of the artist. Towering above these obligations is your obligation of educating the young. The standards of today, and your standard of professional ethics however noble, are as dust unless you achieve the machinery by which you can transfer them to tomorrow.

Since I have neither the wit nor the will to talk about the more esoteric branches of your mystery, this aspect is the one I would most sincerely commend to those of you who would drink this toast with me this evening. What of your President, with whom this toast is associated?

... The reason great builders are great is not because they have great technical skill or great artistic flair. Those who built the great cathedrals were great because of their humanity, because they were prepared to advance towards life and seize its joys and experience them.

All those who know your President know he has these qualities. I am not asking you to drink his health as an architect who has satisfied a client – that is asking far too much. That is the final act of artistic beatification and happens when a man is long dead. I came across some words of Lord Keynes, in concluding a speech to another society, which seem apposite to your Institute and your President.

I give you the toast of RIBA and architecture and of architects who are not the trustees of civilisation for we are not yet there, but the trustees of the possibilities of civilisation.

**Mr Basil Spence, replying to the toast, said:** I must thank you Mr Vice-Chancellor for the very kind and all too generous references to me.

You touched on one very important factor, as Vice-Chancellor of this great University with your stand for education. As architects we are overhauling our educational system, raising the standard for entry into the profession, and we agree with all the standards that the universities maintain. We hope in the future we will maintain the highest standard.

I am sure you would like me to thank our hosts for this period in Manchester. I think you will agree that they have been wonderful hosts and the generosity of the Lord Mayor in making his premises available to us has played a very important part in the success of this conference. I would like to mention Professor Cordingley, an old friend and stalwart who has made a long stand for quality in architecture. I should also like to thank Mr McNaught for his hard work to make this conference a success, and also Mr Gibbon.

This is the last speech I shall have the honour and privilege and pleasure of giving to you as your president. It has been an exciting and thrilling work and companionship. What is my impression after two years of associating with so many architects not only at home, but in Africa and Canada as well. Architects are nice people. They are!

Who else would take on this job? Who else would stand always to be shot at; always to be wrong. It is always 'blame the architect'. What other profession would encourage clients to give the same fees to the young architect who comes out from university college as to some experienced and age-old practitioner? This is rather symbolic of our profession. One of the things that impressed me as a student was how the older architect would always help the younger.

If I may criticise the profession it is the attitude of the younger architect to the older architect. It is a bad thing. We must be a solid profession and we must put up a solid front. Of course, we have our cranks. I always think of cranks as roughage, and roughage is necessary to good digestion. Let us welcome our cranks, let them always be with us, and let them be in the right proportions.

I have many people to thank during this splendid period of my life which has been honoured. I believe it is because of the work, the backing and the tremendous support that I have had from the Council and the committees and many of you here, that the reason why on the 5th I shall be going to the Palace is due to you. I want you to feel this honour is as much yours as mine. I feel most grateful for the tremendous support you have all given me.

Secondly, there has been the support from the Press. They have given us very good coverage. I vacate this chair to Sir William Holford – you are lucky to get a man of Sir William's calibre. When we consider the subject of this conference, who better than Sir William, with all his great experience, to carry on the good work. I am certain that with the IUA conference coming on next year – and I plead again for support for it – we could not find a better president.

What of the future? Remember that we are strong. We are a body of 19,000 members and nothing will hold us back if we act in concert. That is a very important fact that we must not forget. Remember also that the capital investment entrusted to architects yearly is enormous. We have a great responsibility, but this depends on the support and knowledge of the public. They must know what the architect does, what he stands for, and how he can help

them. We must carry on relentlessly with our campaign to get the architect known to the public.

What does the future hold for architects? I believe the horizon is bright. Never have opportunities existed as they do now. The future is in your hands, and it is a bright one. If I were Sir Winston Churchill, I would say 'onwards into battle'. I thank you for proposing this toast, and I thank you all for the way you responded to it.

**Sir William Holford, proposing the toast to the guests, said:** Our guests tonight include representatives of Church and State, scholarship and the arts, science and technology, colleagues in kindred trades and professions, some old friends in our own profession who have made the running at this memorable conference in Manchester, some absent friends to whom I shall refer later, and lastly the bailiffs and bulldogs of the Fourth Estate – by which I mean the Press, which now includes television, both dependent and independent.

For tonight these are our guests. For the rest of the year most of them are our hosts. The French, who are keen on definitions, use the word 'hôte' to mean both host and guest. But hosts they certainly are for they entertain us as architects all the year round.

Certainly our guests tonight are the hosts of architecture and at the same time its customers. Nowadays they are so curiously entangled with it that one hesitates to call them by the old fashioned term 'patrons'. Besides, you remember how Dr Johnson described patrons. It would be discourteous in the extreme to quote his definition, but in fact it is more often ourselves who 'encumber them with help' in these days. My purpose tonight is to welcome them and their Matrons (which I suppose is the female of the Patron) and to say how we hope to see them again and often.

There is another use of the term patron which bears just as directly on the subject of our conference – Rebuilding our Cities. There is a certain store both in Liverpool and Manchester whose name I shall not mention, but which is not unconnected with the Chancellor of Manchester University. It is well known to you all as the 'store of the thrifty, for people who pay as they go'. Whenever I went to their restaurant as a student I was always impressed with a note on the menu card which said 'patrons dividing portions will be charged full price'. How well that applies to city centres. Our whole problem as this conference has shown, is to secure co-ordinated development, comprehensive enough to make real traffic improvements possible, as well as comprehensive enough to combine public advantage with private profit, and comprehensive enough to make it worthwhile to do a first-class and a complete job instead of a partial and second-rate one. If architects learn to combine – with other architects, with engineers, and quantity surveyors, with builders and with scientists – dare we hope that our patrons will combine their resources also so that we can get more out of our cities than the mere sum of the parts. That is what urban design means. I am quite sure that if they divide their

portions they will be charged full price anyway.

If you will give us the tools, as was said by Mr Churchill on another occasion, we will get on with the job. And if you will entertain us in this way, we will undertake to entertain you in return, with better service and in the end with cheaper building, with designs that touch your imagination and therefore do something more than meet a schedule. And if the designs fail, we can always undertake to entertain you, as a last resort, with public inquiries. The last great occasion of this sort, which ran from 18 December last year to 16 January this year, concerned that other Piccadilly which is as unlike Piccadilly, Manchester, as vice is from virtue. Your Piccadilly has statues of men of unquestioned rectitude overtopped by a stupendous Queen Victoria in bronze. It also possesses bus shelters, admirably designed in aluminium and glass, in which impropriety of any sort is unheard of – and, to tell the truth, practically impossible.

But that other Piccadilly is the very haunt of Eros; and indeed we were told by one of the weeklies that the object of the inquiry was to make it a 'place fit for Eros to live in'. The London statue started well as a memorial to that great reformer the Earl of Shaftesbury. But somehow, when Sir Alfred Gilbert designed what was intended in 1893 as the angel of Christian charity – also be it noted cast in aluminium – it soon took on erotic overtones. And it has never lost them. Many of you will remember that very respectable and indeed statistical publication produced last year by HM Stationery Office – 'The population of the British Isles broken down by age and sex'. Well, that was what Piccadilly Circus was like when that admirable inspector, Mr Colin Buchanan (also an architect I am proud to say) opened the public inquiry into the future of the Monico site.

I doubt if there has ever been an inquiry like it. To begin with there were two defendants and no plaintiff. Then, when this was remedied, counsel for the opposition hardly ever knew what his witnesses were going to say. One of them actually got the inspector off his rostrum to look at slides which she had projected for him in the body of the hall.

All this was remarkable enough. What was equally remarkable was the inspector's report and the Minister's decision. We ought to convey our collective gratitude to the Minister for dealing with this matter so seriously and so well. I think it was hard luck on Mr Jack Cotton, as the result of an unlucky press conference, to find himself the centre of a *cause célèbre*. But the Minister did not try to patch things up. He recognised that this was a test case and that there were important principles at stake. True, the ball is now back in our court. A comprehensive design has to be worked out, with the eyes of the larger part of the world looking on to see what will happen. But at least the occasion has been remade, and we have another chance to rise to it.

Anyone who read the admirable two-column article in *The Times* by Mr Lionel Brett or the special survey of the building industry in the *Guardian* on Wednesday, to say nothing of the many pre-conference features in the technical journals, will recog-

nise the part that is being played in the Press in this critical situation, and will join me in welcoming its representatives here this evening.

So far I have mentioned very few names. But there is one I must refer to before proposing this toast to our guests, because he is going to reply to it. He is Dr Greer, the Bishop of Manchester, who with Mrs Greer, has honoured our gathering this evening. In him we recognise the representative of a senior service; senior in history and in authority, senior even in the tables of longevity, for parsons head the list of life expectancy, and architects come second, so senior in fact that it did not even figure in that revealing Comparative Schedule of Incomes in the Pilkington Report. (If I may say so, without impertinence, you do not seem to have been much more successful in securing your 10 per cent, or tithe, than we do in securing our 6 per cent.) But we are alike in this in whatever the rate for the job, we are in duty bound to give our best. We both have a more exacting criterion than the financial one.

I can't sit down without referring to our President. The Institute is to record its appreciation to Mr Spence with a bronze head by Epstein. My only regret is that Epstein did not live another year so that he could have modelled Basil on a horse as befits the equestrian honour to which the Queen has now called him.

**The Right Rev. The Lord Bishop of Manchester**, replying to the toast:

Dr Greer said he was certain the guests would join in thanking Sir William for the charming and witty way in which their health had been proposed. The association between architecture and the Church had always been a close one. The problem of urban renewal was a very difficult one; Manchester for example had a long way to go and there was a great need for an uplifting of public taste. The Bishop continued:

As I thought of what I would say to you I asked myself what was in the New Testament concerned with architecture, and I thought immediately of where the disciples of Jesus pointed to the great stones in the temple and said 'Master, behold these great stones'. The magnificence of these buildings was what they implied. And the Master said 'there shall not one stone stand upon another and every one shall be pulled down'.

That may sound a rather gloomy thought, but we recognise it as true. There is nothing any one of you will produce that will, ultimately survive. But I do believe and I am sure many of you do too, that where beauty is made in stone or bronze or form, there is created something not in this world only, but in the world which is to come. There is something created which is taken up in the world which is dear to God and which will continue to exist when the furniture of earth is scattered in the dust.



## Centre of Burslem Improvement

The following extracts are from a report issued by the Civic Trust:

Little by little, like a hundred other worn-out town centres, the centre of Burslem continued to decay, until, in recent years, it was little more than a mere junction of streets, a turning area for buses.

This was the area chosen by the Civic Trust for its second pilot experiment in civic design, to follow that in Magdalen Street, Norwich, a year ago. The improvement now completed, on the initiative of the City Council as part of its 1960 Jubilee Celebrations, is an attempt to rejuvenate this area and give a new heart to the town. It can be a place where people come to meet under the trees, sit in the sun and listen to the band, catch their bus or leave their car.

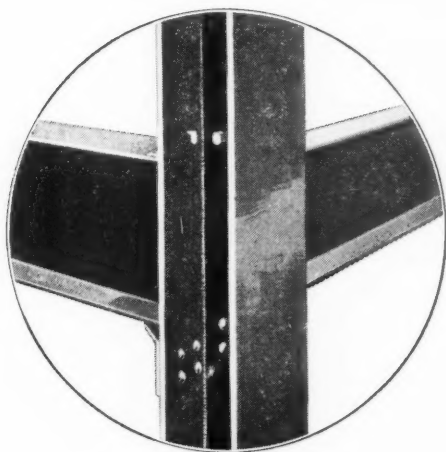
The Trust made available the services of Professor Misha Black, OBE, RDI, PPSIA, MInstRA, who was co-ordinating architect for the Norwich scheme, to produce a comprehensive plan for the area in collaboration with the City Architect and the City Reconstruction Officer.

The elements of the new central area are simple enough: a lavatory, a car park and a seating area. The Old Town Hall, now rescued from the traffic and given a new podium, was taken as a fixed point and the garden laid out on the same axis. Four sycamores and two plane trees, now semi-mature and 25 to 30 feet high, have been planted here to grow, year by year, until they equal and then exceed the height of the surrounding buildings. Two lawns, set at right angles to each other, with beds and tubs of flowers contrast with the paving. A circular drum 16 feet in diameter, with a removable umbrella-type canopy, provides a stand on which a band can play or from which public meetings can be addressed. Specially designed seating, much of it generously donated by the Rotarians, is positioned to catch the sun and along the north side of the garden is a raised terrace with a specially designed seat shelter for cold or windy weather, which fulfils the additional function of partially screening the car park behind.

The North Staffordshire Architectural Association was asked to nominate sector architects to work on detailed schemes for individual properties and ten local firms generously offered their services free as their contribution to Jubilee Year. These architects worked, in the first instance, to the City Architect and then to Mr Black as Co-ordinating Architect. As in Norwich, Mr Black produced a Manual of principles for the guidance of all working on the scheme.

The properties forming the perimeter of the area are for the most part shops, but include also pubs, banks, two small factories, a post office and the new (1911) Town Hall. Of the 80 properties concerned none has felt totally unable to participate (though perhaps 4 per cent have re-decorated on their own without submitting their schemes to co-ordination). Every opportunity has been taken to remove, redesign or resite redundant or unseemly eyesores, even of a minor kind.

The contribution of the Civic Trust has been the provision of expert technical advice, and professional services.



## **... stronger .... cheaper**

*The high quality of British structural steel  
is now recognized by the sanctioning of higher working stresses.*

*More efficient columns and beams, new methods of  
design and fabrication—all combine to reduce the amount  
of steel and labour required, and thereby to reduce the cost.*

*The result: an overall saving.*

**STEEL-FRAMED BUILDINGS**  
GIVE GREAT ARCHITECTURAL SCOPE WITH  
UNQUESTIONED STRUCTURAL SECURITY

BRITISH CONSTRUCTIONAL STEELWORK ASSOCIATION, WESTMINSTER, LONDON, S.W.1



# PERMUTIT WATER TREATMENT

## Softened Water for buildings

Boilers and hot water systems cannot remain efficient if scaled-up by hard water. This is one important reason for including Permutit Water Softening Plant in all new buildings.

Scale deposited by hard water is an effective insulator: as shown in the illustration on the right, it forms a coating on heating surfaces and in pipes, and retards heat transmission. The result — increased fuel consumption in almost direct proportion to the thickness of scale. A Permutit Water Softener effectively removes *all* hardness from the water, and the boiler thus remains *clean*. This saves money — on fuel — because expensive descaling is never needed.

Not only are scaled boilers less efficient: the scale causes overheating and blistering of plates and tubes, leading eventually to expensive repairs.

In canteens, and for catering generally, Permutit Softened Water also brings many benefits. Cleaning operations are simplified, reducing labour and consumption of washing powders. Scale is prevented in jackets, heaters and tea urns, and less tea is used in making a better brew.

In the laundry, Permutit Softened Water saves soap and soda. In the illustration below, the copious lather produced by soap in a sample of softened water is compared



Section of scaled water pipe

with the cloudy suspension of soap curd produced by soap in hard water. Permutit Softened Water also eliminates scum in the machines, and gives a better colour and finish to the laundered articles with less wear and tear: all commercial laundries and launderettes use softened water.

For personal use, softened water adds to the comfort of living: soap lathers freely, and the skin is left soft and smooth. Unquestionably the luxury value of softened water cannot be overlooked: in hotels, it is essential; in offices and factories, it improves working conditions.

Permutit Water Softeners are made in sizes to treat any quantity of water. They connect directly to the incoming main, and the softened water flows to the roof storage tank without break in pressure. As shown in the diagram on the right, only three connections are required — one to the hard water inlet, one from the soft water outlet, and one to the nearest drain. No elaborate foundations are needed.

Soap shaken in soft and hard water.



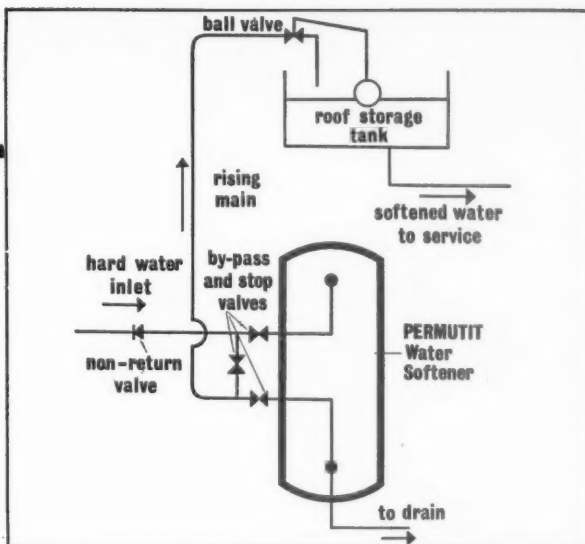
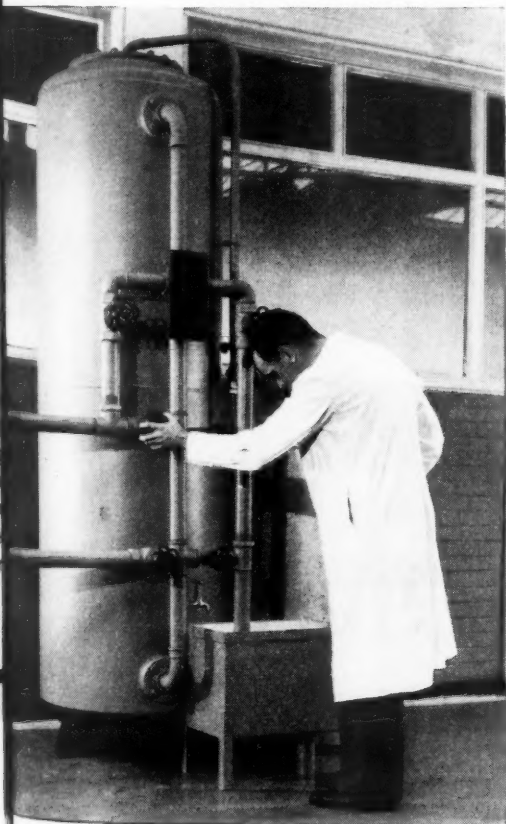


At regular intervals — daily or weekly — the softener has to be "regenerated" with common salt. This can be done manually or by fully automatic control.

Permutit Fully Automatic Softeners are self-regenerating. A single multiport valve directs all the regenerating as well as service — flows; this valve is rotated by an electric motor which is under the control of a timing device. When the Softener has treated its rated capacity of water, or hardness is detected by a Permutit Automatic Hardness Tester, the multiport valve automatically takes the Softener right through all stages of regeneration, then returns it to service.

Permutit Fully Automatic Softeners offer positive advantages: they eliminate human error and prevent the softener being over-run and hard water being supplied to service; they enable the Softener to be regenerated at any time of the day or night without attendance, and — with a Hardness Tester — they can respond immediately to any changes in the hardness characteristics of the raw water supply.

Permutit type DL manual Water Softener.



Permutit Water Softeners are simple to install.

★ Permutit will be delighted to make full technical recommendations and prepare estimates for softeners for all building projects: the following information will be needed:

Daily water consumption.

Source of water supply.

Purposes for which the softened water will be needed.  
(If for boilers, please state type and working pressure.)

General information on the building layout.

To Architects: Copies of these pages, and Technical Publications on Permutit Water Treating equipment will be sent on request.



## THE PERMUTIT COMPANY LIMITED

DEPT. D.F.10 PERMUTIT HOUSE, GUNNERSBURY AVENUE, LONDON, W.4

TELEPHONE: CHISWICK 6431

WORKS: EALING and SOUTH WALES

CABLES: PERMUTIT, LONDON

### SUBSIDIARIES:

THE PERMUTIT COMPANY OF AUSTRALIA PTY. LIMITED  
567-573 Pacific Highway, Crow's Nest, Sydney, N.S.W.

THE PERMUTIT COMPANY OF SOUTH AFRICA (PTY) LTD., P.O. Box 6937 Johannesburg

ION EXCHANGE (CANADA) LTD., 33 Price Street, Toronto 5, Ontario

UNITED WATER SOFTENERS LTD., Gunnersbury Avenue, London, W.4

**PERMUTIT  
WATER  
TREATMENT**



*Another  
Quality  
plus  
Economy  
Specification*

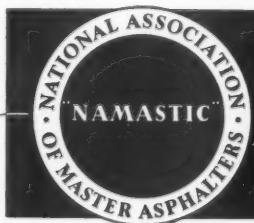
# 'NAMASTIC'

*The Association has a membership made up of the following:—*

ASSOCIATED ASPHALT COMPANY LTD.  
THE BIRMINGHAM ASPHALT & PAVING CO., LTD.  
BOLTON & HAYES LTD.  
WILLIAM BRIGGS & SONS LTD.  
CAMBRIDGE ASPHALT CO. LTD.  
COVERITE (ASPHALTERS) LTD.  
DAVIES BROTHERS (ASPHALTERS) LTD.  
DURABLE ASPHALTE CO., LTD.  
DURASTIC LTD.  
EXCEL ASPHALTE CO., LTD.

In the construction of this important office building, everything had to be of outstanding quality. The choice of 'NAMASTIC,' which is made from British materials with manufacturing tolerances much closer than those demanded by British Standard Specifications, emphasised this need while ensuring the added advantage of lower costs.

*Specify*



ROOFING · FLOORING

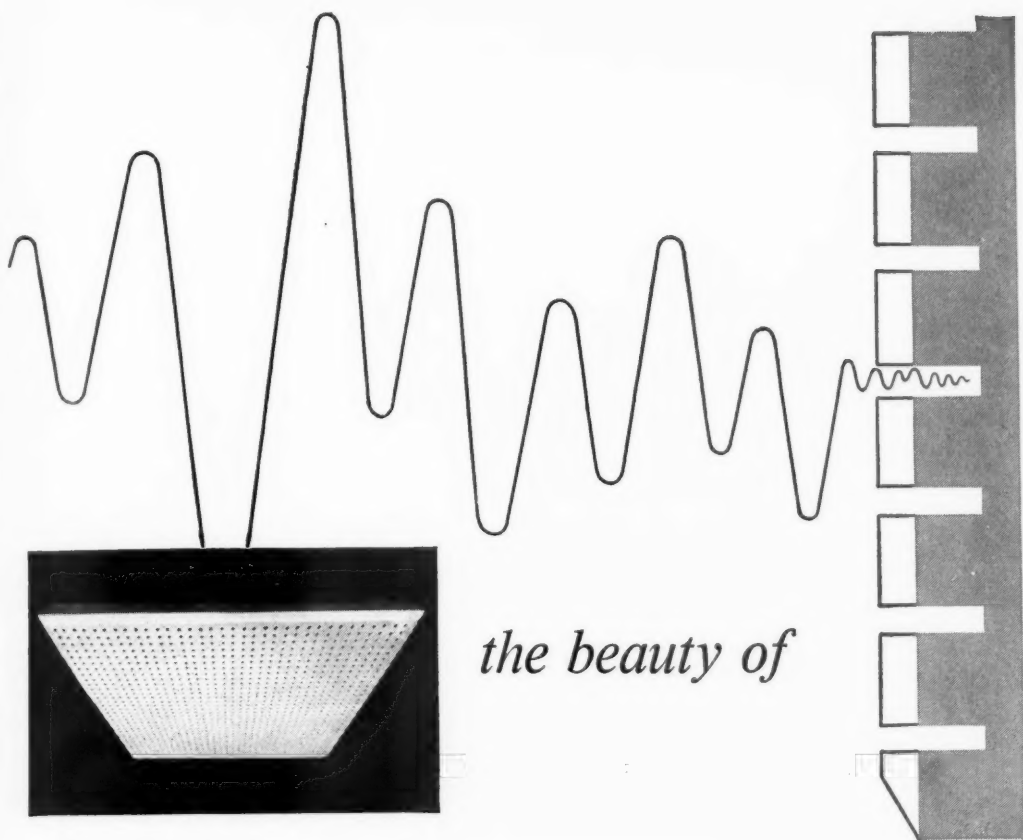
— THE STANDARD ASPHALT FOR BUILDING

TANKING

FALDO ASPHALTE CO., LTD.  
FIELD & PALMER LTD.  
THE IMPROVED ASPHALTE CO., LTD.  
MOUNTFIELD JUNIOR  
NATURAL ROCK ASPHALTE CO., LTD.  
THE OXFORD ASPHALT CO.  
C. PASINI (IPSWICH) LTD.  
PERMANITE LTD.  
THE ROCK ASPHALTE CO., LTD.  
J. TAYLOR & SONS (ASPHALTERS) LTD.  
UNITY ASPHALT (LONDON) LTD.

*For full information about N.A.M.A. and free technical advice on asphalt for Building apply to the Secretary:*

NATIONAL ASSOCIATION OF MASTER ASPHALTERS, 9 CLARGES STREET LONDON W1  
TELEPHONE: GROSVENOR 5333 ESTABLISHED 1933



*the beauty of*

## **PAXTILES** *is more than skin deep* \*



The sound-absorbing holes in Paxtiles penetrate **THROUGH** the asbestos millboard face **INTO** the asbestos fibre backing.

That is the mark of the genuine Paxtile; it is the reason why Paxtiles provide the most effective sound insulation. Not only do Paxtiles fulfil this basic requirement they additionally offer a marked degree of heat insulation. They are absolutely **FIREPROOF**, rotproof, vermin proof and corrosion resistant. Paxtiles embody a distinctive form of decoration, adding handsomely to the decor of ceilings and walls and they can be painted any colour without detracting from their acoustic qualities. With all these practical attributes it is small wonder that Paxtiles are being specified on an ever increasing scale by modern architects.

Newalls  
(Reg'd brand)

**PAXTILES**

**NEWALLS INSULATION CO. LTD.** *Head Office:* **WASHINGTON, CO. DURHAM**

*A member of the TURNER & NEWALL ORGANISATION  
Offices and Depots at: LONDON, GLASGOW, MANCHESTER, NEWCASTLE UPON  
TYNE, BIRMINGHAM, BELFAST, DUBLIN, BRISTOL & CARDIFF.  
Agents and Vendors in most markets abroad*

*For top quality and 10% saving*

**MAC FISHERIES**

*specify Merthyrware*



*Mac Fisheries Ltd. have found that Merthyrware Tiles provide the right kind of flooring to stand up to heavy traffic. The shale from which Merthyrware Tiles are made is the finest in the country and because our factory is situated on the site of this raw material, we can produce a tile of superior quality at a more economical price.*



# MERTHYRWARE

*Modern Ceramic Floor Tiles*

These hardwearing, real ceramic tiles are unbeatable for their long-lasting qualities and consistent size and colour. Merthyrware Tiles are produced in one of the most modern, best-equipped factories in the country. They are universally accepted, and are particularly suitable for use in shops, offices, factories, schools and municipal buildings everywhere.

## **SPECIFY MERTHYRWARE FOR:—**

**SUPERIOR STRENGTH**—up to 10 tons per sq. inch.

**CLEAR, FAULTLESS COLOURS**—Red and Mingles.

**STANDARD SHAPE AND CONSISTENT SIZE.**

**RESISTANCE** to heat, moisture absorption, acids, grease and fire.

**REAL ECONOMY**—Merthyrware cost less than any comparable tiles!

**Outstanding** for accurate size and consistent colour.

**CERAMIC CILL TILES**—Fit ALL cills.

**MERTHYRWARE TILES** *never wear out!*

SWIFT DELIVERY—24 HOUR SERVICE—WRITE OR 'PHONE

**MERTHYRWARE LTD. CARKER'S LANE, LONDON, N.W.5. TELEPHONE: GULLIVER 8761 (10 LINES)**

FACTORY: HEOLGERRIG, MERTHYR TYDFIL, GLAMORGAN. TELEPHONE: MERTHYR TYDFIL 2793



There's only **ONE** simple way to heat water . . .



## NEW WORLD CIRCULYN GAS WATER HEATERS

Architects and Municipal authorities interested in dwellings, modernisation and conversion are using more and more gas water heaters with storage systems.

As an example the **NEW WORLD C.12LF** Circulator fitted to a 20 gallon cylinder, under the draining board or other convenient position, is normally adequate for an average household of up to four persons.

Other sized **NEW WORLD** Circulators are available when hot water requirements are in excess of that provided by the C.12LF. All are reasonably priced, economical in use and easily fitted.

In older properties existing gas and water services are

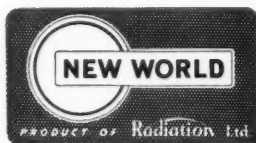


usually adequate and do not need replacement. Design is such that the minimum of maintenance is required over a long period of usage.

**NEW WORLD** Water Heaters also can be used as an auxiliary to a solid fuel system for intermittent use.

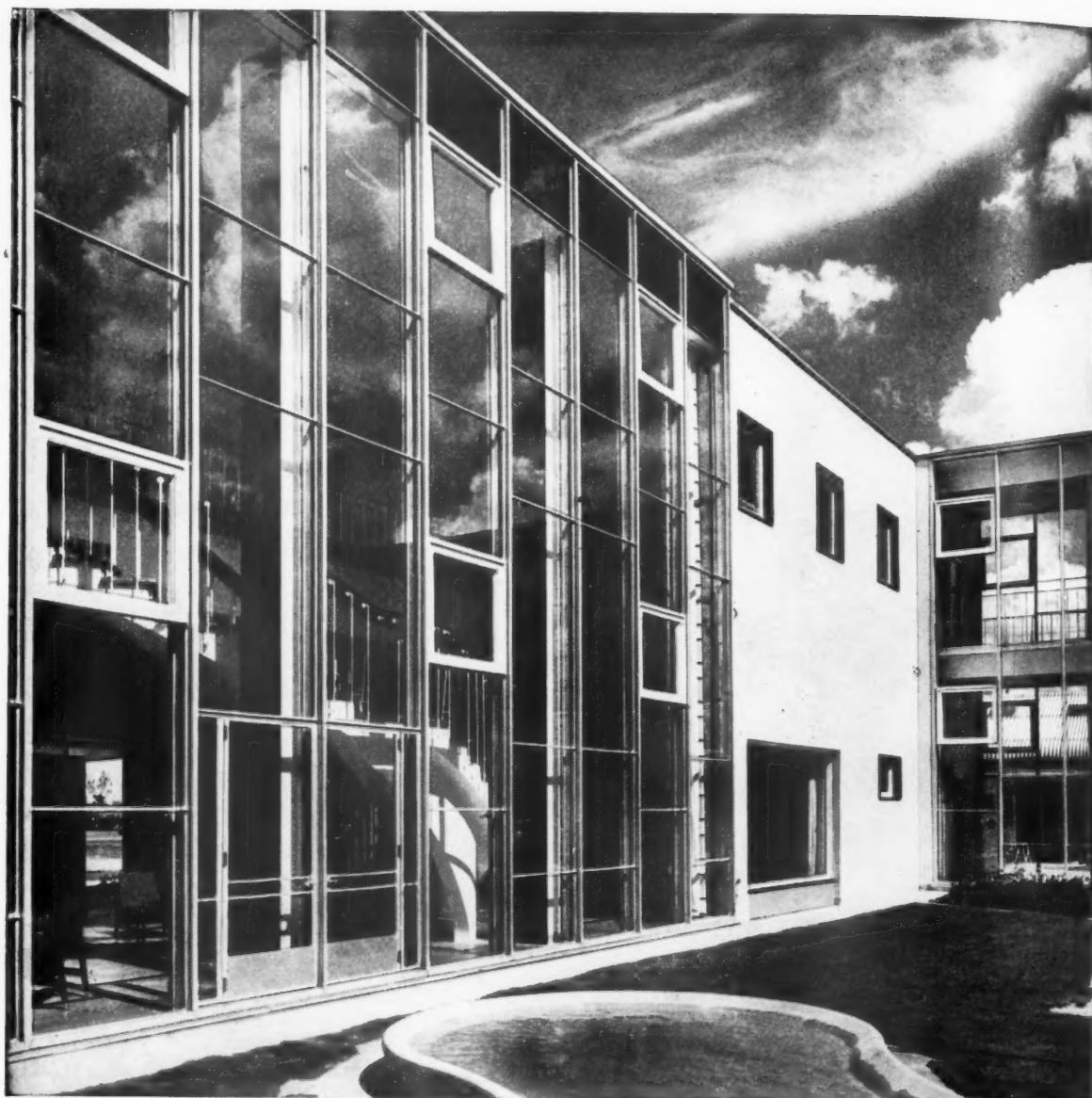
Some 35 County, Borough, Urban and Rural Councils are using the C.12LF./20 gallon cylinder Under Draining Board unit including: L.C.C., Willesden, Ilford, Camberwell, Battersea, Coventry, Lambeth, West Ham, Enfield, Edinburgh, Preston, Romsey, Liverpool.

Fit



**gas water heaters  
and forget your problems**

RADIATION GROUP SALES LTD, 255 NORTH CIRCULAR ROAD, LONDON, N.W.10. WILLESden 1234



J. Douglass Mathews & Partners, Chartered Architects  
Contractors:- W. & C. French, Ltd.

## planned light

This impressive use of aluminium and glass at the new Aspro-Nicholas factory (illustrated above) has provided us with another unique opportunity to demonstrate a sample of the variety of specialised structures which Luxfer Ltd manufacture for the purpose of admitting light to a building.

# LUXFER



WAXLOW ROAD, HARLESSEN, LONDON N.W.10

Telephone: ELGAR 7292

Telegrams: LUXFER, HARLES, LONDON

Manufacturers of Metal Windows, Lantern Lights, Ferro-Concrete Pavement Lights, Bookstacks and Partitions

AT A NEW  
FACTORY  
FOR  
J. S. FRY  
& SONS LTD  
SOMERDALE



THE photograph shows one of several 'Universal' columns, each carrying an estimated load of 1000 tons. The steelwork of this factory, comprising 2,100 tons, was erected by us in 4½ months.

*General contractors: John Knox (Bristol) Ltd.*

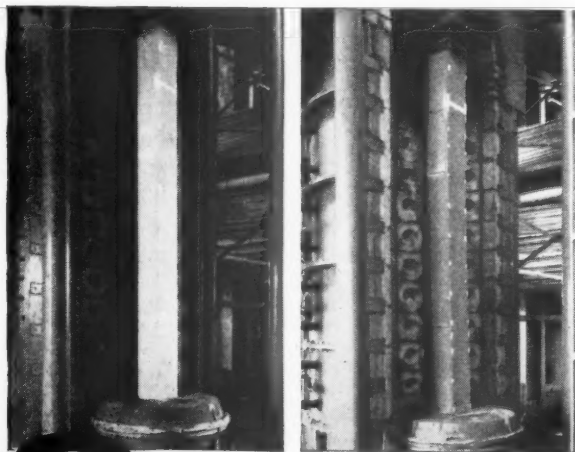
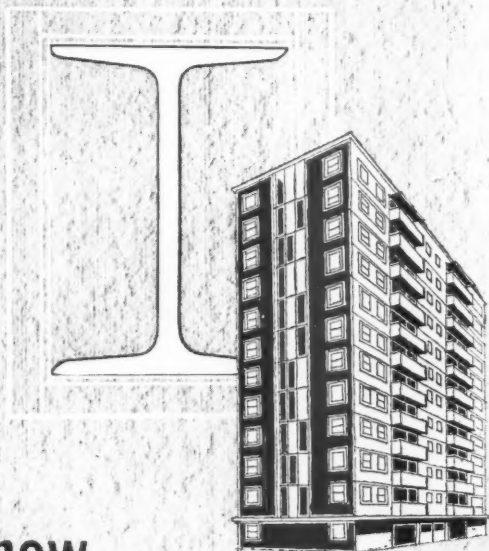
STEELWORK BY  
**REDPATH BROWN**

*Branches: EDINBURGH, GLASGOW, LONDON and MANCHESTER*

STEELWORK  
IS  
CHEAPER  
AND  
READILY  
AVAILABLE

Asbestolux...

and the new  
low-cost  
column casing  
system



**CAPE ASBESTOLUX**

THE NON-COMBUSTIBLE ASBESTOS INSULATION BOARD

An entirely new design for the casing of structural steel with Asbestolux was recently tested at the Fire Research Station, Borehamwood. Two hours fire protection was provided by a simple casing of  $\frac{3}{4}$ " Asbestolux. The casing is exceptionally easy and economical to erect and ready for immediate decoration.

Please write for a copy of the test report and technical data sheet on this construction.



Manufactured by CAPE BUILDING PRODUCTS LIMITED • COWLEY BRIDGE WORKS • UXBRIDGE • MIDDLESEX

Also at: Manchester, Birmingham, Glasgow, Newcastle

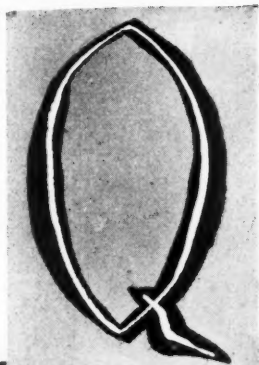
Telephone: Uxbridge 4313 Telex: 23471/UXB

A subsidiary of The Cape Asbestos Company Limited  
AX57 H



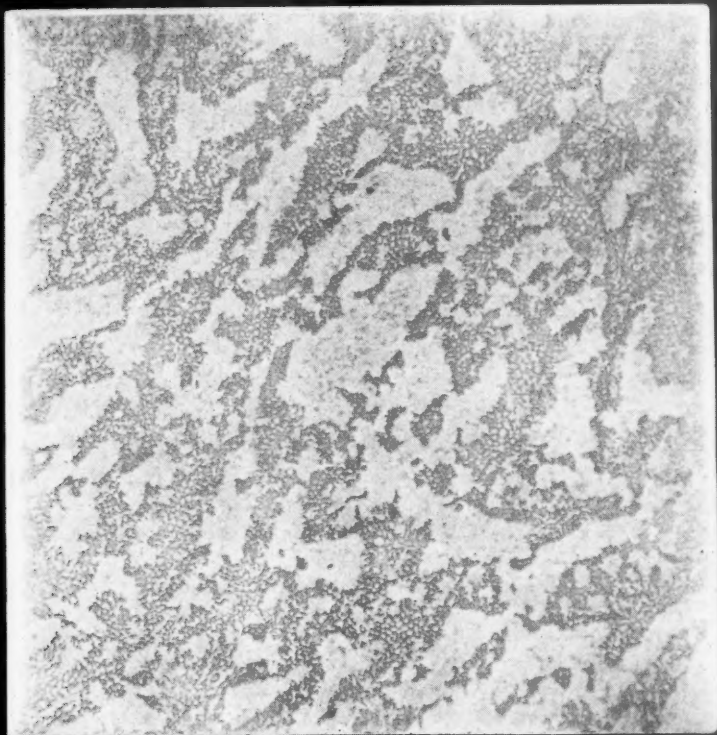
Members of

The British Ceramic Tile Council



*Anything new in*

*Ceramic Surfaces?*



RICHARDS **DUROTEX** SERIES

presents a new, textured surface with a distinctive glaze flow  
not previously achieved

Available in 17 colours; examples included in

**DESIGN INDEX**

Write for folder B.102.

You will find the range interesting and useful.

RICHARDS TILES LTD., TUNSTALL, STOKE-ON-TRENT



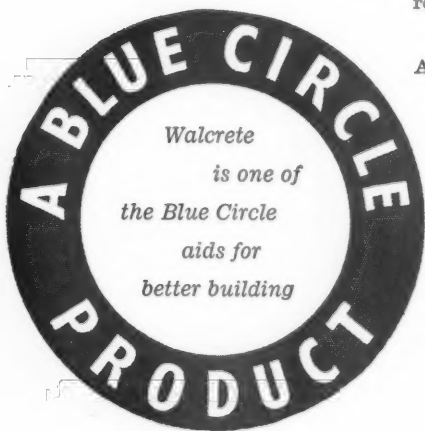
**THE PERFECT  
MORTAR MATERIAL  
WHICH REQUIRES  
NO  
ADDITIVE**

# **WALCRETE**

**MASONRY CEMENT**

Because the correct constituents are accurately proportioned and intimately mixed-in during manufacture you get the perfect mortar material with WALCRETE.

Walcrete, manufactured under rigid laboratory control, requires only the addition of sand and water to provide mortar of uniform character and consistency. And because it has the highest possible sand carrying capacity, Walcrete produces a cheaper mortar for bonding and pointing bricks or blocks and also for external rendering and internal plastering.



*Write for further details and prices to:*

**THE CEMENT MARKETING CO. LTD.,** Portland House, Tothill Street, London, S.W.1.  
**G. & T. EARLE LIMITED,** Hull.

**THE SOUTH WALES PORTLAND CEMENT & LIME CO. LTD.,** Penarth, Glam.



stops  
roof  
blisters

# Rubervent

Patent applied for

Trade Mark Registered

ISOLATED & VENTILATED BUILT-UP ROOF

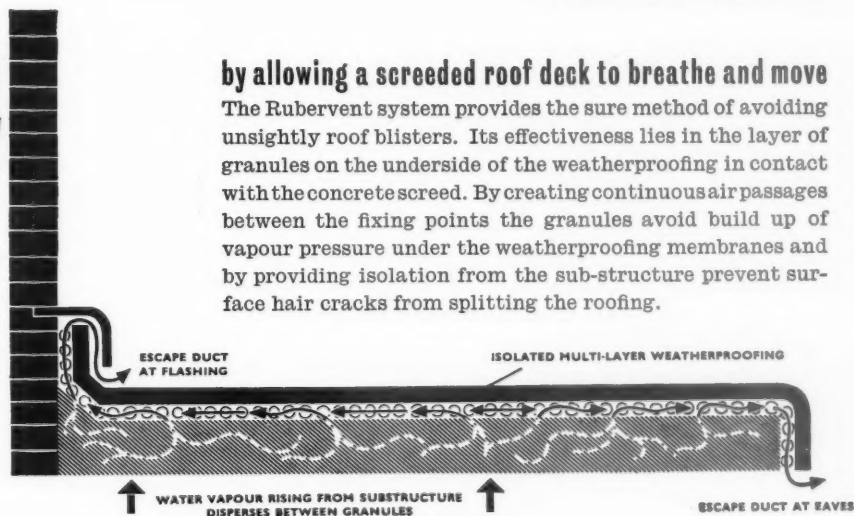


## Fixing and workmanship

Rubervent is available only when supplied and fixed by the Contract Division of The Ruberoid Company. A range of specifications is available for flat, sloping and concrete shell roofs.

## by allowing a screeded roof deck to breathe and move

The Rubervent system provides the sure method of avoiding unsightly roof blisters. Its effectiveness lies in the layer of granules on the underside of the weatherproofing in contact with the concrete screed. By creating continuous air passages between the fixing points the granules avoid build up of vapour pressure under the weatherproofing membranes and by providing isolation from the sub-structure prevent surface hair cracks from splitting the roofing.



For full details and model, write or telephone:

THE RUBEROID COMPANY LIMITED, 696 COMMONWEALTH HOUSE, 1-19, NEW OXFORD STREET, LONDON, W.C.1. TEL: HOLBORN 9501 (5 LINES) RV6137



## HEATING BY CRANE

Old Trafford, the Manchester headquarters of the Lancashire County Cricket Club, is one of the most famous cricket grounds in the world. Almost every touring team that visits England plays one Test here.

The Club's premises now have a new heating system—by Crane, of course. One No. 37L Whitehall Sectional Boiler, oil burning, has been installed; and throughout the Pavilion building 46-5½" wide Crane Hospital Pattern Radiators provide the friendly warmth that this form of heating can give. Crane radiators were chosen for their good appearance; because they are smooth castings with adequate space between sections for easy cleaning; because they are made of cast iron for long life; and, most important of all, because they do such a lot for the comfort of the Club members! Shown above is the newly decorated Committee Members' Dining Room.

*Heating Engineers: Saunders & Taylor Ltd., Manchester 3.  
Architects: Bradshaw, Gass & Hope, Bolton.*

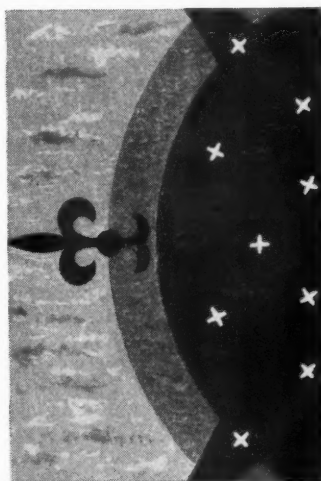


## CRANE HEATING EQUIPMENT

CRANE LTD., 15-16 RED LION COURT, FLEET STREET, LONDON E.C.4 WORKS: IPSWICH  
Branches: Birmingham, Brentford, Bristol, Glasgow, Leeds, London, Manchester



The finest floors  
-and the SERVICE  
to match



*Dunlop Rubber Flooring in the  
entrance hall at the offices of  
Messrs. Reardon Smith Ltd., Cardiff.*

Semtex, manufacturers of a wide range of flooring materials, including Semastic Decorative Tiles, Semflex Tiles, Vinylex Tiles, Dunlop Rubber Flooring and Vertilex Decorative Wall Tiles, will employ their vast resources in taking welcome responsibility for your entire flooring operation. Twenty contracting branches throughout the country will advise readily on all flooring and pre-treatment problems and offer a highly-skilled laying service, providing, in addition, comprehensive facilities for design.

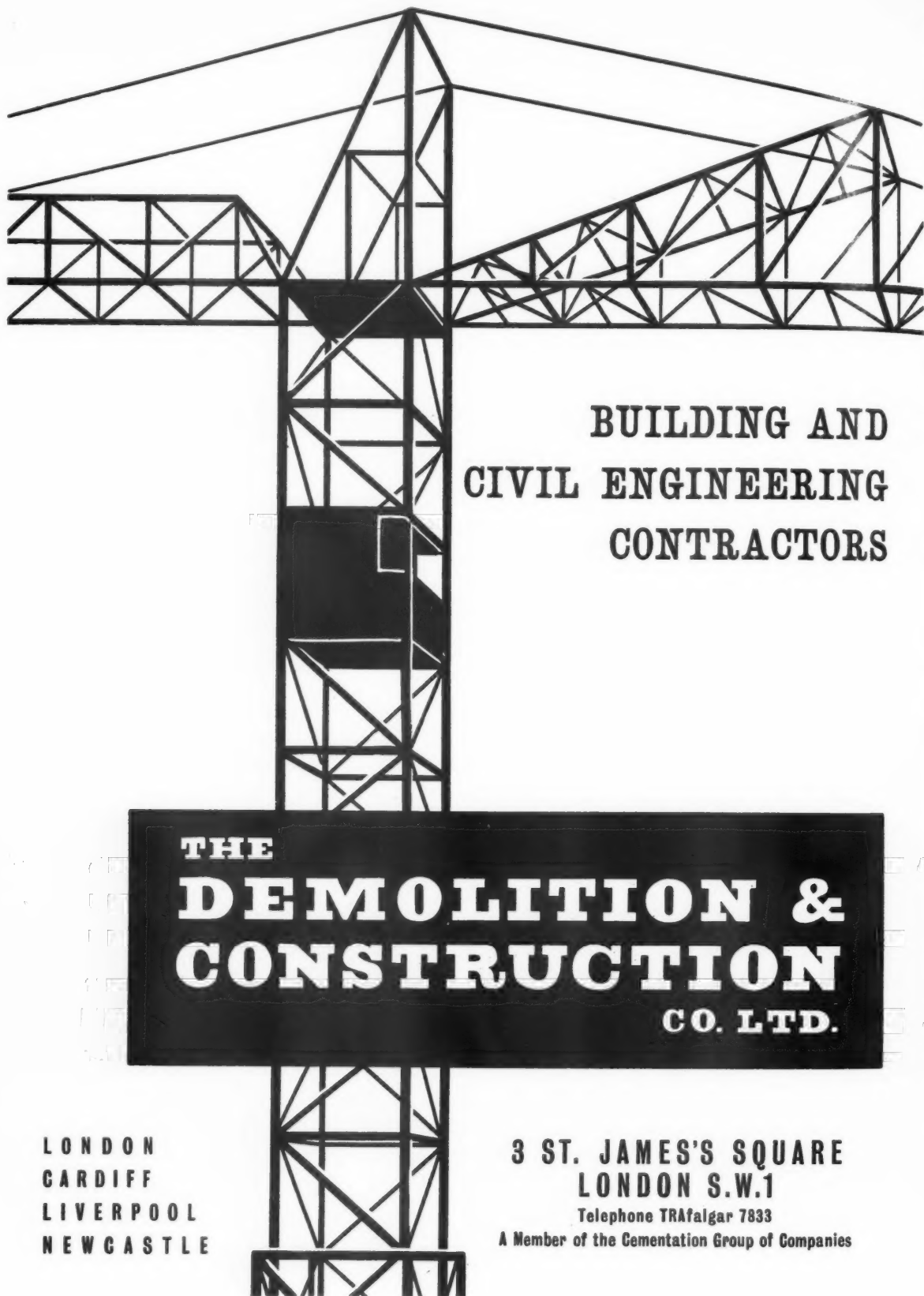
IMAGINATIVE MODERN FLOORS

**Semtex Ltd**

A DUNLOP COMPANY

SEMTEX LTD • 10 SEMTEX HOUSE • 19/20 BERNERS STREET • LONDON W.1 • TEL: LANGHAM 0401

CHM/60/SE/C.15



BUILDING AND  
CIVIL ENGINEERING  
CONTRACTORS

**THE  
DEMOLITION &  
CONSTRUCTION  
CO. LTD.**

LONDON  
CARDIFF  
LIVERPOOL  
NEWCASTLE

3 ST. JAMES'S SQUARE  
LONDON S.W.1

Telephone TRAfalgar 7833

A Member of the Cementation Group of Companies

**"TURNALL"**  
REGD. TRADE MARK

ASBESTOS - CEMENT

## CLADDING TILES

for the new B.B.C. Television Centre



*Architects :*

*Graham Dawbarn Esq., C.B.E.  
(Norman and Dawbarn)  
in association with  
M.T. Tudsbery Esq., C.B.E.  
Consulting Civil Engineer  
to the B.B.C.*

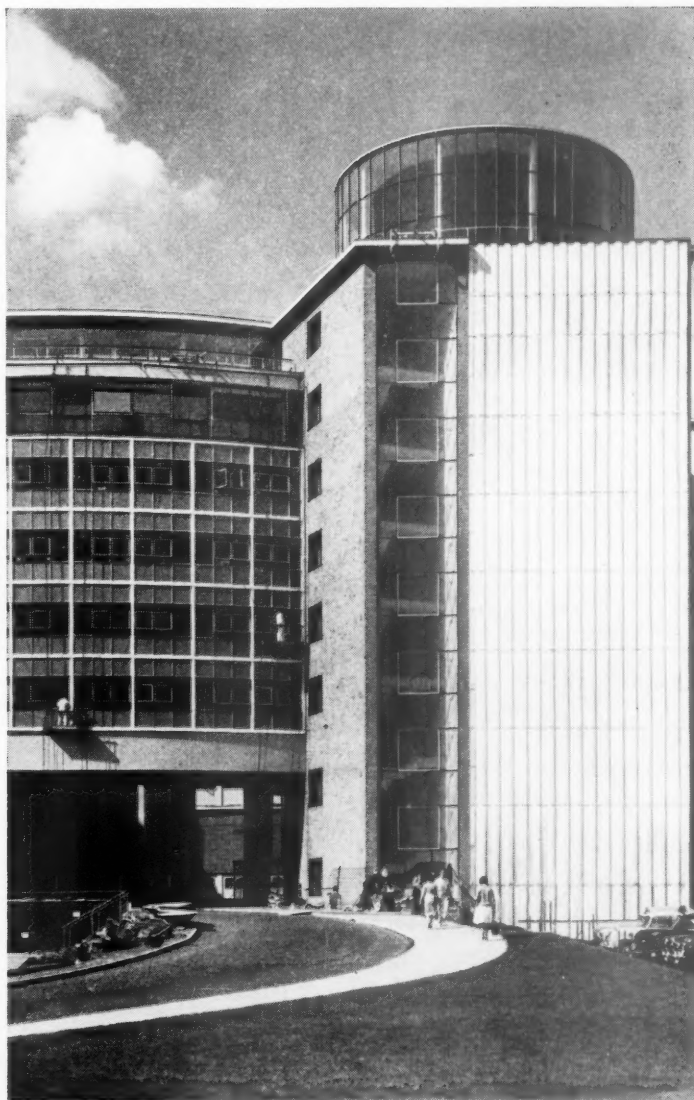
"TURNALL" Asbestos-Cement Cladding Tiles cover an area of approximately 100 ft. by 30 ft. which forms part of the temporary end of this fine new building at Shepherd's Bush, London W.12

The following products manufactured by Turners Asbestos Cement Co. Ltd. have also been supplied:

"EVERITE" Asbestos-Cement Flat Roofing Tiles, fixed by Limmer & Trinidad Lake Asphalt Co. Ltd.

Sprayed "LIMPET" Asbestos to give 4 hours' fire resistance to steel trusses in seven studios (Higgs and Hill Ltd., main contractors).

"TURNALL" Asbestos-Cement Liners for forming air ducts, and a considerable quantity of short lengths of "EVERITE" Asbestos-Cement Pipes which were cast in the floors to form openings for cables and other services.



### TURNERS ASBESTOS CEMENT CO. LTD.

A MEMBER OF THE TURNER & NEWALL ORGANISATION  
TRAFFORD PARK · MANCHESTER 17 · Tel: TRAFFORD Park 2181 · LONDON Tel: WATERLOO 4712  
and at BIRMINGHAM · BRISTOL · CARDIFF AND GLASGOW

G53



**DIFFICULTIES CAN BE OVERCOME.** It's all a question of know-how. The Reinforced Concrete Design Group of Expanded Metal specialise in the know-how of problem resolution in reinforced concrete. They do this on a responsible, independent, professional basis. They are at the service of Architects and Engineers at every stage of construction from the initial planning to the formal opening. If you would like to know more about RCDG and how they can help you, write today for further details.

## **REINFORCED CONCRETE DESIGN GROUP**

An independent professional service for you

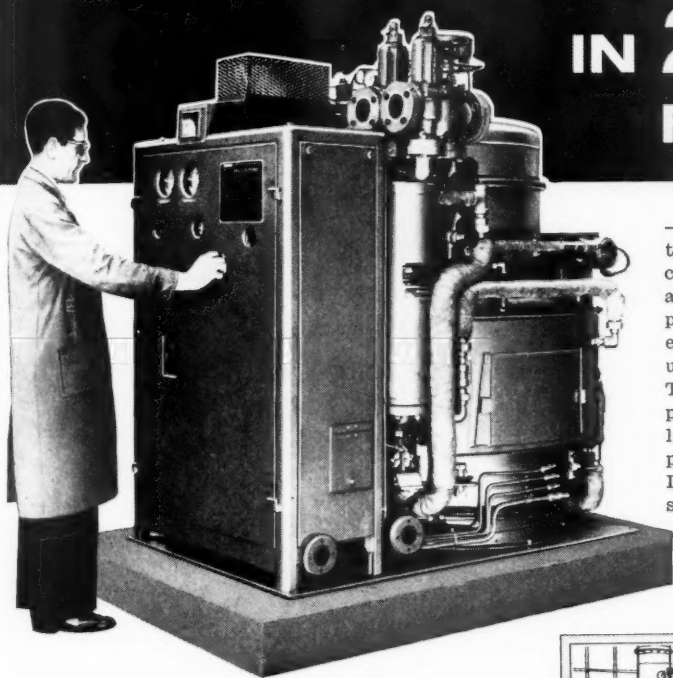
THE EXPANDED METAL CO. LTD., 16 CAXTON STREET, LONDON S.W.1. Telephone: ABBey 7766

**Expanet**



# ALL STEAMED UP

## IN 2 MINUTES FROM COLD



—and dry steam too, continuously and under the most arduous conditions. Low in capital cost, smaller in size, and weighing far less than any boiler of the same capacity and design pressure, the unique Stone-Vapor design eliminates the need for boiler houses and takes up far less room than ever before.

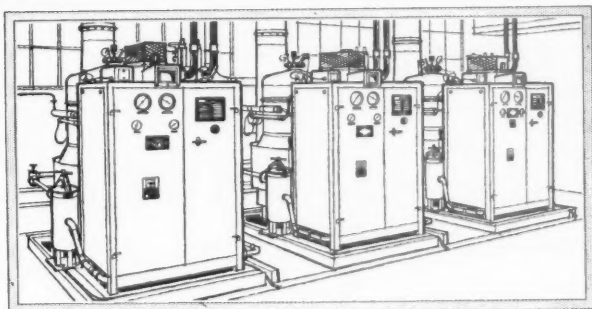
The use of completely automatic and accurate pressure control, even on widely fluctuating loads, cuts the quantity of fuel oil burned per shift/steam load.

Installation, operation and maintenance are simple and convenient, and large quantity production now permits deliveries to meet urgent requirements.

They're good—very good, these Stone-Vapor boilers. You should know more about them.

Operating pressure 50 to 300 p.s.i. (specials up to 1,000 p.s.i.). Sizes to suit steam loads from 300 to 20,000 lb. steam per hour. 78%—82% efficiency (the same at low and high loads). Oil-fired, smoke-free, tested and delivered, with Lloyds certificate. Automatic controls of the simplest yet most effective form.

**If you are interested in:** Process steam with wide demand fluctuations; Air conditioning at lower cost; **Roof Mounted Boilers;** Steam raising in less space; Laboratory and high pressure test work; Automatic boosters to the main steam plant. *Write for full details.*



*Multiple Stone-Vapor installations save space and fuel*

## STONE-VAPOR BOILERS

**J. STONE & CO. (DEPTFORD) LTD.** Arklow Road, London, S.E.14. Tel: Tideway 1202

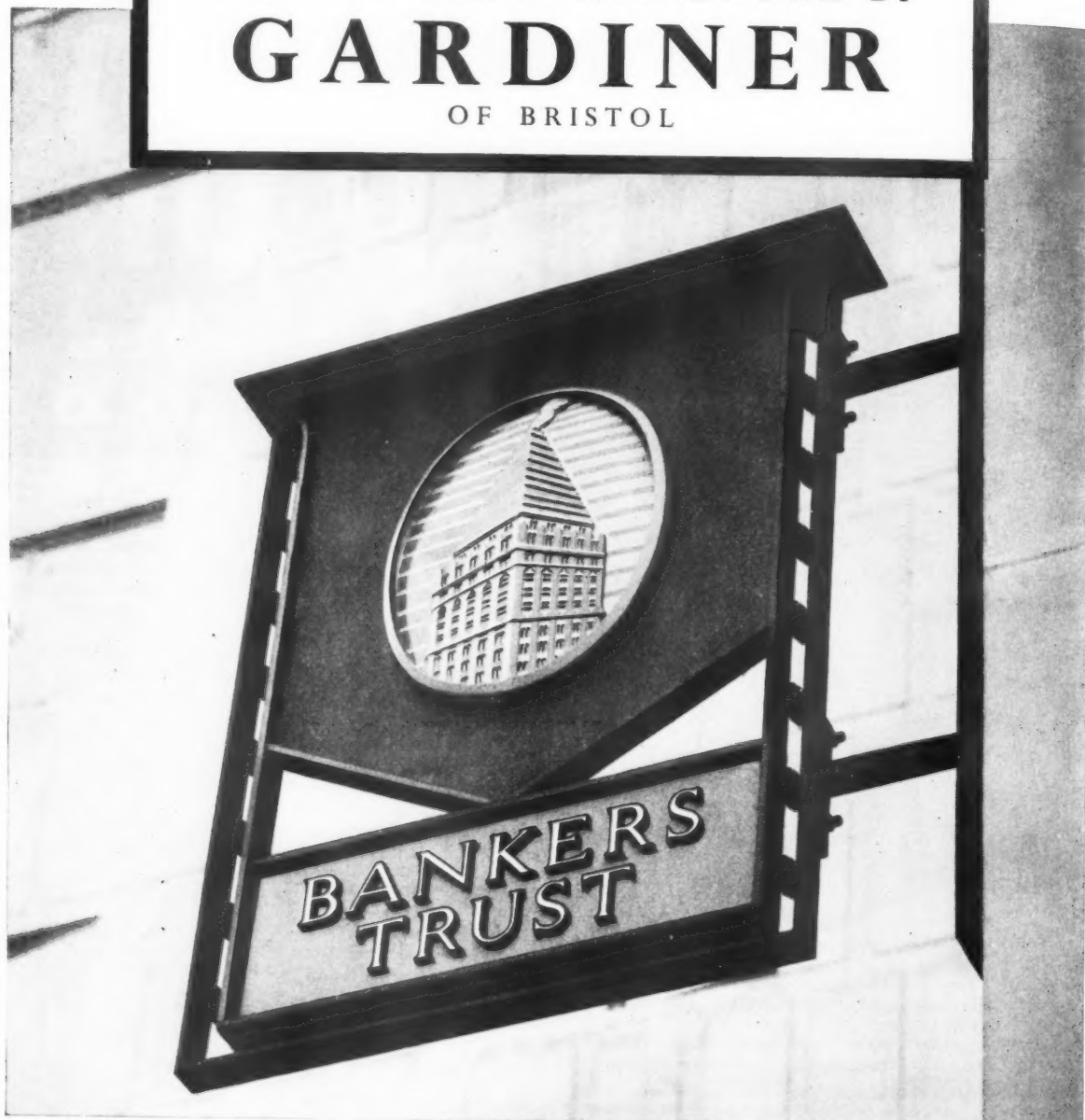
Manufactured under licence of the Vapor International Corporation Ltd., Chicago, U.S.A.



152



ARCHITECTURAL METALWORK BY  
**GARDINER**  
OF BRISTOL



*Architects: Campbell Jones & Sons, London E.C.4*

Our Technical Advisory Department is always available, write, phone or call:

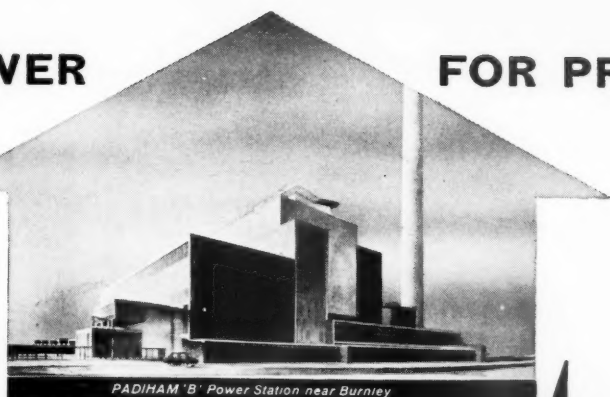
**Gardiner, Sons & Co. Ltd., G.P.O. Box No. 140, Broad Plain, Bristol 2, and 8 William IV Street, Strand, London W.C.2.**

H.W. 153

# POWER

# FOR PROSPERITY

**PADIHAM 'B'**  
Power Station  
near Burnley.  
Consulting Civil Engineers:  
C. S. Allott & Son  
Consultant Architects:  
Cruckshank & Seward



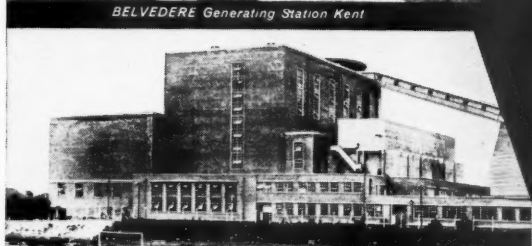
PADIHAM 'B' Power Station near Burnley

**BELVEDERE**  
Generating Station, Kent  
Chartered Architects:  
Farmer & Dark, F.F.R.I.B.A.



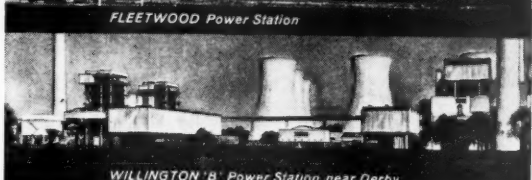
BELVEDERE Generating Station Kent

**FLEETWOOD**  
Power Station  
Consulting Civil Engineers:  
L. G. Mouchel & Partners  
Architects:  
Harry S. Fairhurst & Son



FLEETWOOD Power Station

**WILLINGTON 'B'**  
Power Station near Derby  
Engineering Consultants:  
Ewbank & Partners Ltd.  
In Association With  
Chartered Architects:  
Farmer & Dark, F.F.R.I.B.A.  
Consulting Civil Engineers:  
Sir William Halcrow &  
Partners



WILLINGTON 'B' Power Station near Derby

**CARRINGTON 'B'**  
Generating Station  
Consulting Civil Engineers:  
C. S. Allott & Son



CARRINGTON 'B' Generating Station

**LONDON**  
**SHEFFIELD**  
**MANCHESTER**

## GLEESON

Building and  
Civil Engineering  
Contractors with  
wide experience  
of power station  
construction

Constructed for  
**The Central Electricity  
Generating Board**

**M. J. GLEESON (CONTRACTORS) LTD.**  
Haredon House London Road  
North Cheam Surrey  
Tel: Fairlands 4321 (10 lines)

TAM183

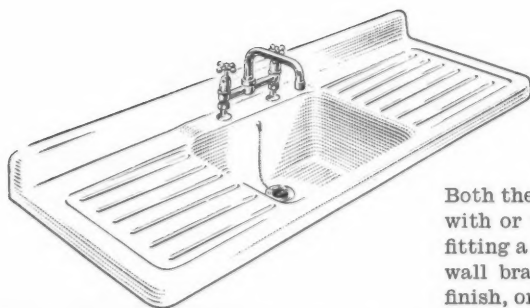
# Porcelain enamel on rigid cast-iron!



◀ The single drainer Hostess Sink is shown here complete with combination mixer fittings. List price (sink only without fittings) £10. With overflow £10.15.0.

**STRONG** The Hostess Sink is rigid and durable because high grade cast-iron is employed in its construction. Cast-iron also provides an excellent base for the deep coating of acid-resisting porcelain enamel (there's a choice of colours: white, cream or opal green).

**HYGIENIC** The fine porcelain enamel surface will withstand hard usage and is remarkably easy to keep clean—a quick wipe-down restores its gleaming appearance, and the Hostess Sink has no crevices or awkward corners to accumulate dirt.



◀ A double drainer Hostess Sink is available, illustrated here with combination mixer fittings. List price (sink only, without fittings) £18. With overflow £18.15.0.

Both the single and double drainer Hostess Sink are available with or without overflow, and there is also one suitable for fitting a crumb strainer waste. They can be fitted on cast-iron wall brackets or legs in plain painted or matching enamel finish, or with a cabinet of personal choice.

## Standard Hostess sink



IDEAL BOILERS & RADIATORS LIMITED · IDEAL WORKS · HULL



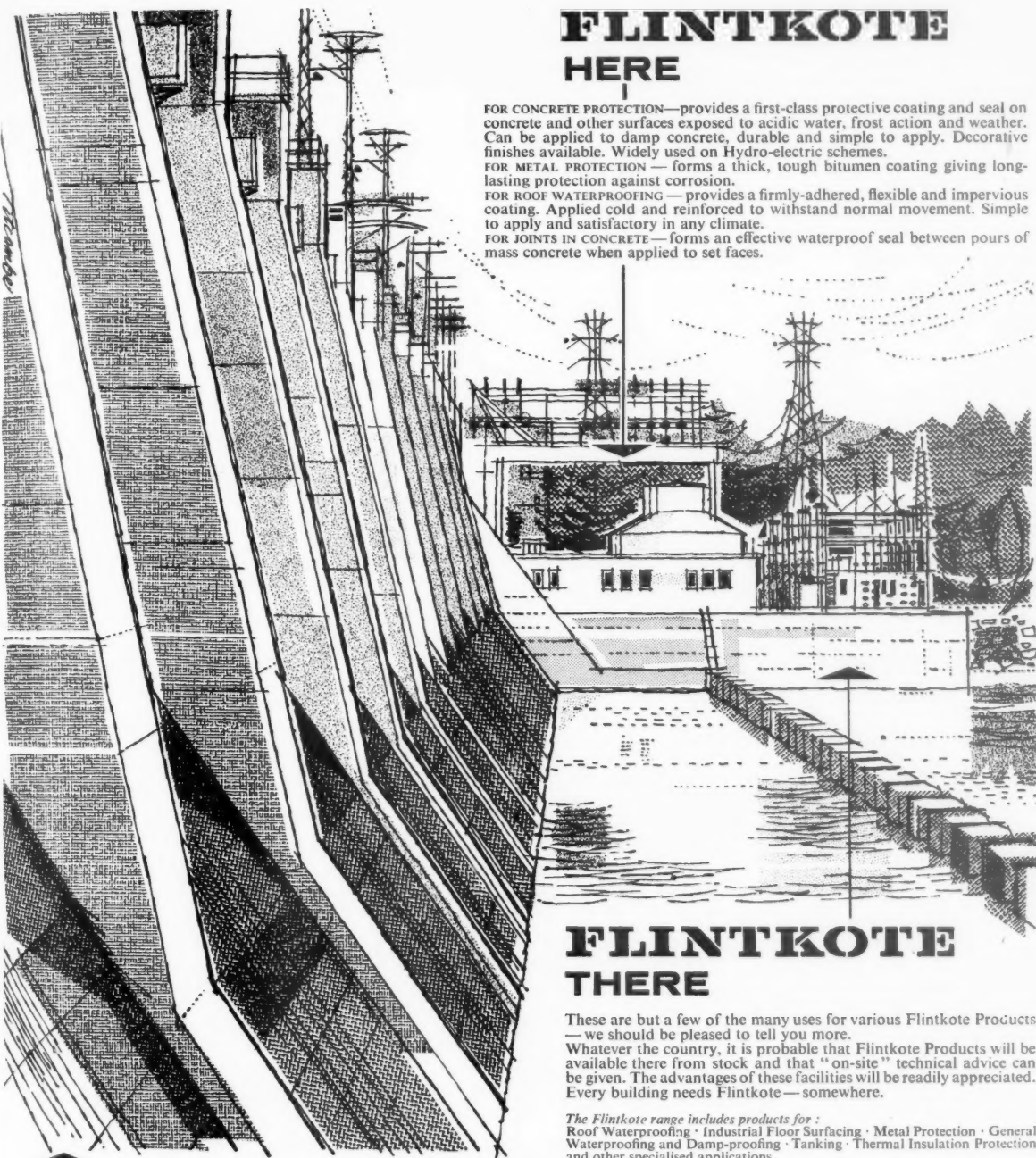
## FLINTKOTE HERE

FOR CONCRETE PROTECTION—provides a first-class protective coating and seal on concrete and other surfaces exposed to acidic water, frost action and weather. Can be applied to damp concrete, durable and simple to apply. Decorative finishes available. Widely used on Hydro-electric schemes.

FOR METAL PROTECTION—forms a thick, tough bitumen coating giving long-lasting protection against corrosion.

FOR ROOF WATERPROOFING—provides a firmly-adhered, flexible and impervious coating. Applied cold and reinforced to withstand normal movement. Simple to apply and satisfactory in any climate.

FOR JOINTS IN CONCRETE—forms an effective waterproof seal between pours of mass concrete when applied to set faces.



## FLINTKOTE THERE

These are but a few of the many uses for various Flintkote Products—we should be pleased to tell you more.

Whatever the country, it is probable that Flintkote Products will be available there from stock and that "on-site" technical advice can be given. The advantages of these facilities will be readily appreciated. Every building needs Flintkote—somewhere.

*The Flintkote range includes products for:*  
Roof Waterproofing · Industrial Floor Surfacing · Metal Protection · General Waterproofing and Damp-proofing · Tanking · Thermal Insulation Protection and other specialised applications.

# ...FLINTKOTE

Regd

## ALMOST EVERYWHERE



THE FLINTKOTE COMPANY LIMITED

Adam House, One Fitzroy Square, London W.1

Telephone: EUSIon 7224.



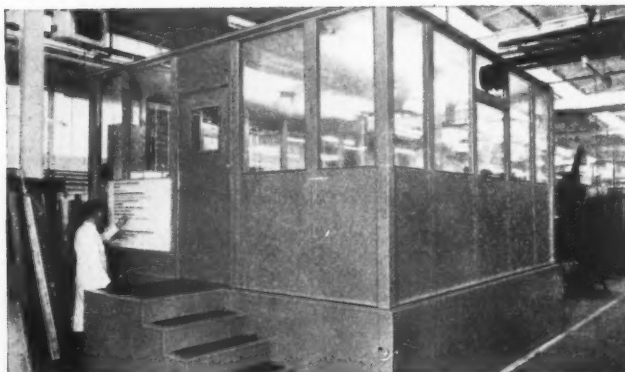
Scotland. THE GLEN SHIRA HYDRO-ELECTRIC SCHEME. Concrete surfaces of the main dam, lower dams, and main tunnel are all FLINTKOTE—protected from attack by acids in the peaty water.

F/G

# THE SOUND APPROACH TO QUIET!

... install clean, streamlined N.S.E. Partitioning,  
establish a happy congenial atmosphere and  
increase staff efficiency.

EASY TO ERECT • ADAPTABLE • ECONOMICAL



*for Office and Factory*

.... it must be



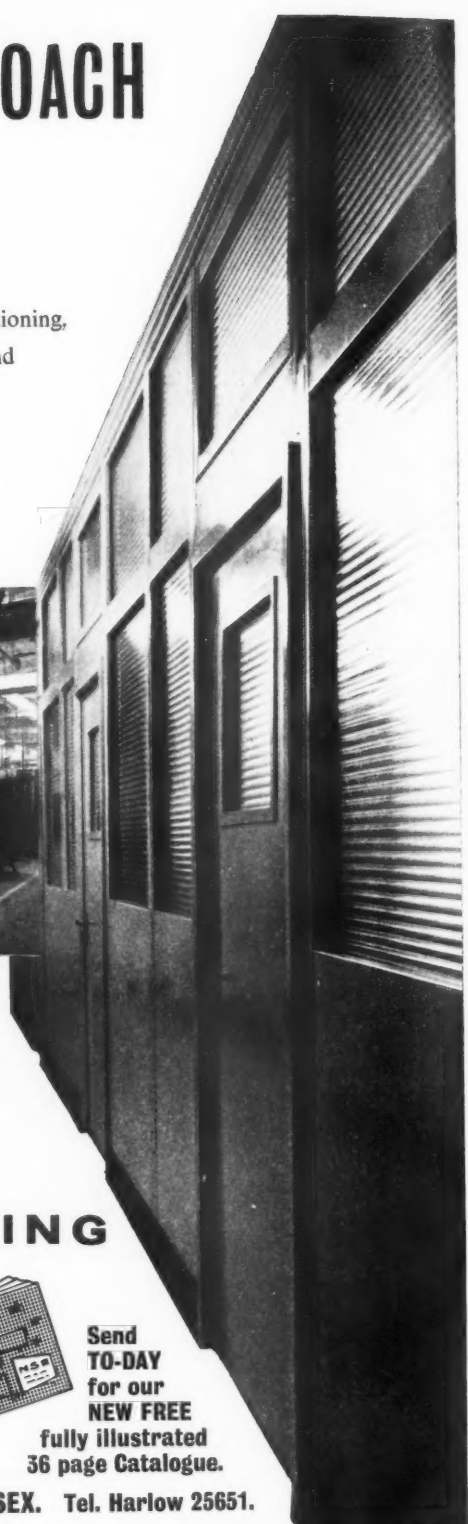
## STEEL PARTITIONING

*Inspect the full range of N.S.E.  
Partitioning and Office Equipment at  
our modern Showrooms in  
BRISTOL, BIRMINGHAM and MANCHESTER  
or visit our London Display Centre at  
149, BOROUGH HIGH STREET, S.E.1.*



Send  
TO-DAY  
for our  
NEW FREE  
fully illustrated  
36 page Catalogue.

**NORWOOD STEEL EQUIPMENT LTD., HARLOW, ESSEX. Tel. Harlow 25651.**



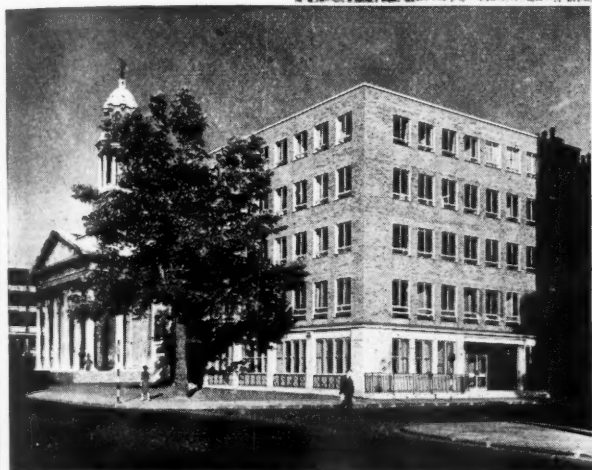
For s  
no  
than  
B  
o  
used  
tr

London  
Stock B  
John L

Depot  
Tel: T  
GREE  
53794  
Tel: K  
Tel: P  
SUDB

RIBA

For sheer, lasting beauty there is  
no more versatile building material  
than the Stock Brick. Morden College,  
Blackheath provides an  
outstanding example of bricks  
used by Sir Christopher Wren in  
traditional architecture.



London Bible College, 19, Marylebone Road, N.W.1. Built with Eastwoods Stock Bricks. Architect: Clifford Culpin & Partners. Contractors: Messrs. John Laing and Son Limited.

To-day Stock Bricks play an  
important part in the interpret-  
ation of the architect's  
conception of a modern office  
block, contemporary church or  
educational centre.



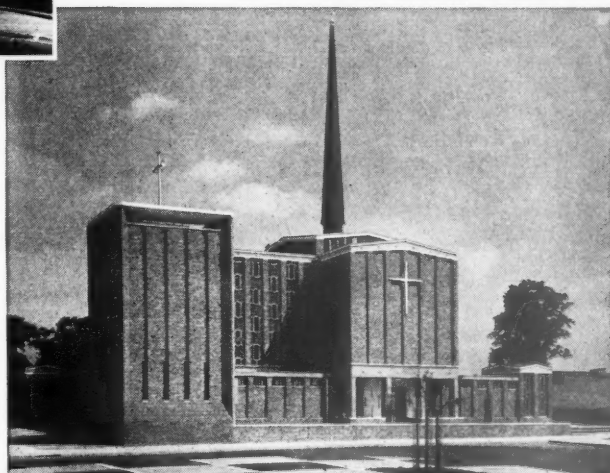
**LONDON**

**STOCK BRICKS**

from

**EASTWOODS SALES LIMITED**

Head Office: 158-160 City Road, London, E.C.1 Telephone: CLerkenwell 2040 (30 lines)



St. Paul's Church, Town Centre, Harlow, Essex. Built with Eastwoods Stock Bricks. Architect: Messrs. Humphrys & Hurst. Contractor: Hosking & Son (Essex) Ltd.



Depots at: CAMBRIDGE, 117 East Road, Tel: Cambridge 55514/2087; COVENTRY, Sandy Lane, Tel: Coventry 28701/2; DONCASTER, Crompton Road, Tel: Doncaster 61442/49256; EASTLEIGH, Allbrook, Eastleigh, Hants, Tel: Eastleigh 2621/2; GILLINGHAM, Trafalgar Street, Tel: Gillingham 51088/9; GREENWICH, Norman Road, S.E.10, Tel: GREENWICH 1172/3; HILLINGDON, Uxbridge Road, Tel: Uxbridge 6421/2; IPSWICH, Cumberland Street, Tel: Ipswich 53794/5; ISLEWORTH, 11 The Square, Tel: Isleworth 2271/2; KINGSLAND, 4 Orsman Road, N.1, Tel: SHoreditch 4133/4; KING'S LYNN, South Everard Street, Tel: King's Lynn 3718; LEEDS, 7, 320 Meanwood Road, Tel: Leeds 43401/2; LETCHWORTH, Birds Hill, Tel: Letchworth 1700; MORTLAKE, High Street, S.W.14, Tel: PROspect 7231/2/3; NORWICH, Rosary Road, (NOR 225) Tel: Norwich 21498; SOUTHEND-ON-SEA, Fairfax Drive, Southend, Essex, Tel: Southend 48171/2; SUDBURY (Suffolk), North Street, Tel: Sudbury 2895/6; WEMBLEY, St. John's Road, Tel: WEMbley 5404/5; WEYBRIDGE, Bridge Wharf, Tel: Weybridge 3963.



*. . . but for the damp that rises  
... a PERMANITE dampcourse*



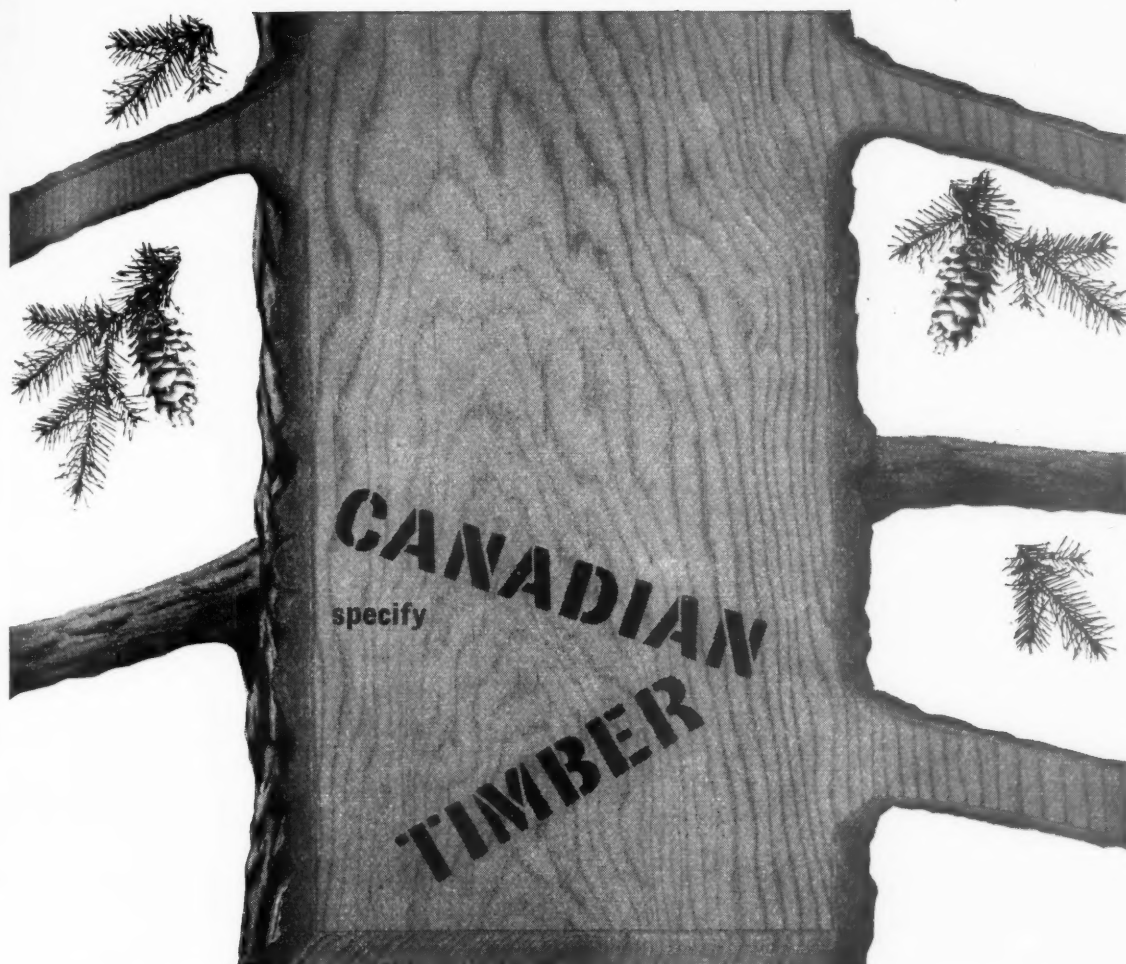
specify "PERMALUME" B.S. 743 : 1951 Type 5A  
"LEAD BITU" B.S. 743 : 1951 Type 5D & 5E  
"LEAD ASBEX" B.S. 743 : 1951 Type 5F  
"ASBEX" B.S. 743 : 1951 Type 5C

DAMP COURSES BY  
**PERMANITE**  
LIMITED

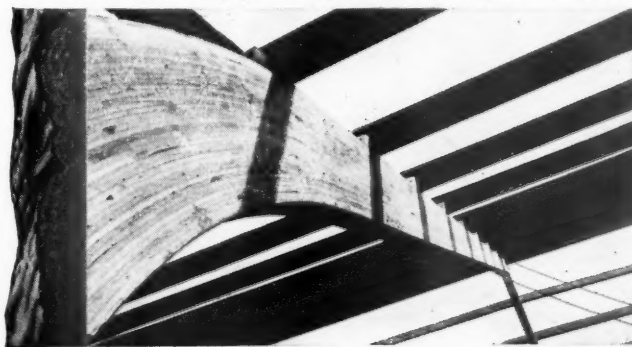
455 OLD FORD ROAD · LONDON, E. 3

**PERMANITE** carry out mastic asphalt and felt roofing contracts in all parts of the country. Specify **PERMANITE**





**Douglas Fir** Often reaching a height of over 300 ft., this is the tallest giant in the forests of British Columbia. Felled and stripped, the tree yields a timber of light weight and even grain which is stronger pound for pound than steel or concrete. Hence its considerable variety of uses – for heavy structural work, heavy duty case-making, shipbuilding and bridging, indeed virtually every application where a hardy wood of excellent wearing and weathering properties is needed. *For further information contact: Commercial Secretary (Timber), Canada House, London SW1.*



Douglas Fir beams provide the largest laminated arches in the U.K.



## Drainage costs cut by 30%

That's what architects and engineers have discovered—under differing site conditions—when pitch fibre pipes have been specified. Even higher savings have been reported—with 500ft. of drain laid per hour with semi-skilled labour. Pitch fibre is the modern answer to drainage needs. It is so easy to lay correctly and trouble-free in service.

### SEVEN reasons why pitch fibre cuts your costs

- Laying, testing and backfilling are simple and swift—rates up to 500 ft. an hour can be achieved with semi-skilled labour.
- Corrosion, root penetration, water infiltration and cracking through settlement are all eliminated.
- Schedules can be maintained regardless of weather conditions.
- Pitch fibre pipes are light, strong, tough and precision made to BS 2760.
- Wastage caused by breakages on site is drastically reduced.
- Concrete bed and haunch, and cement joints are unnecessary.
- Improved hydraulic flow makes flatter gradients possible.

## Pitch Fibre Pipes

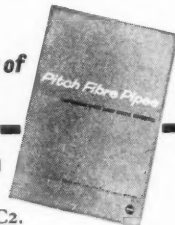
ISSUED BY THE PITCH FIBRE PIPE ASSOCIATION OF GREAT BRITAIN

27 Chancery Lane, London WC2. Telephone: CHAncery 6001

THE KEY ENGINEERING CO LTD · TEMPLE TUBES LTD · UNION FIBRE PIPES (GREAT BRITAIN) LTD · FLEXPipe LTD

TGA PARC

**SEND NOW for your free copy of the Pitch Fibre Pipe Manual**



**PITCH FIBRE PIPE ASSOCIATION  
OF GREAT BRITAIN**

27 Chancery Lane, London WC2.

*Please send me your manual 'Pitch Fibre Pipes'.*

NAME

POSITION

ORGANISATION

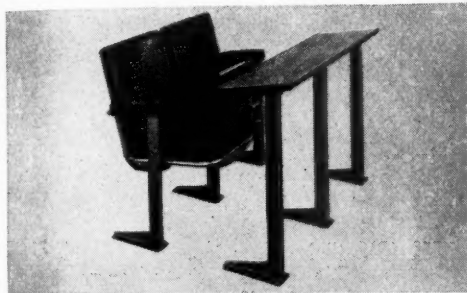
ADDRESS

113



# Take a seat...

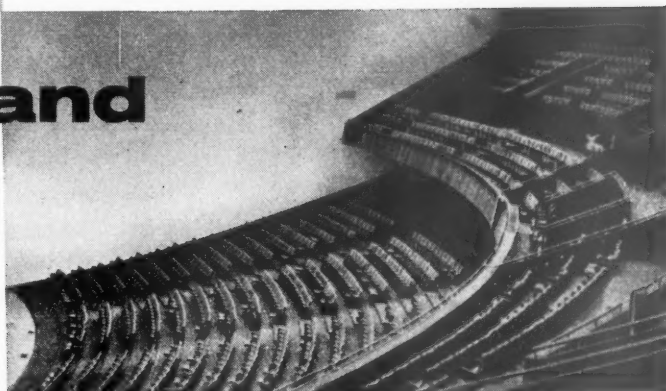
Tip-up auditorium seating is our business. Lecture theatre seating with writing ledge; tip-up chairs upholstered in foam rubber for permanent floor fixing; economical tip-up seating for assembly halls where the floor must occasionally be cleared.



or two

or a thousand

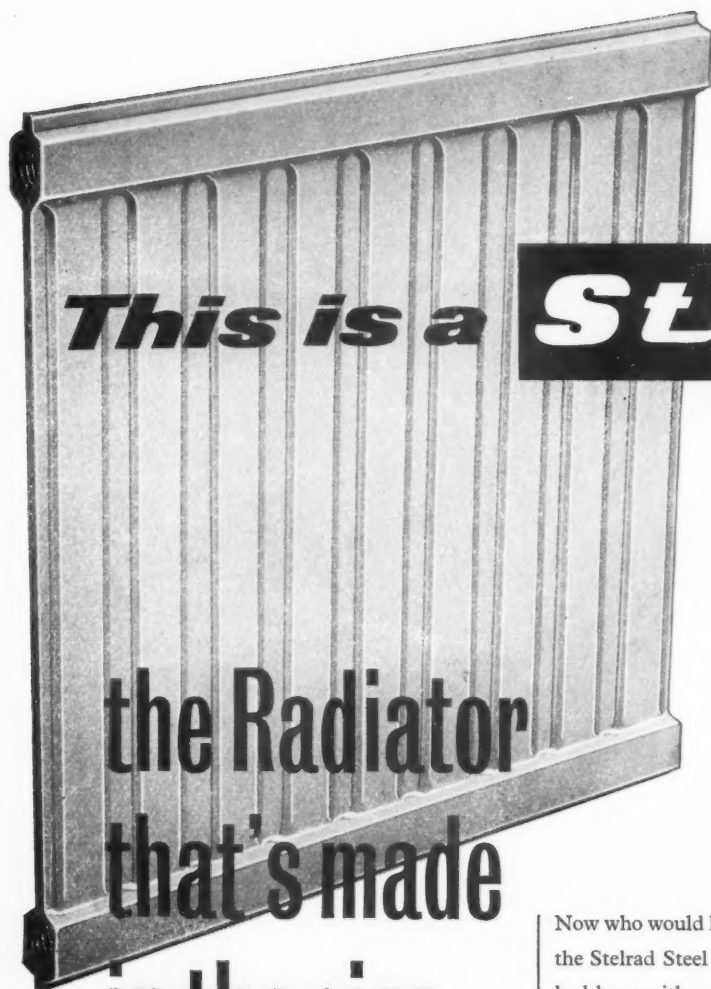
All these and more make up our range. Plus all the help and advice, based on intimate knowledge of the subject and long association with architects and their problems, which we can give.



Have you seen our illustrated booklet?  
A copy will be sent on request.



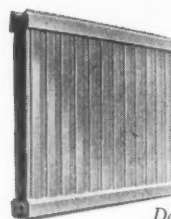
COX & CO., (WATFORD) LTD., WATFORD-BY-PASS, HERTS. Tel: WATford 28541



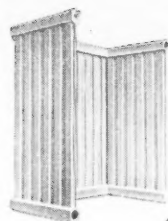
***This is a***

***Stelrad***

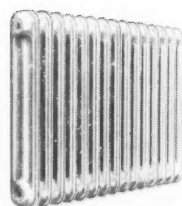
**the Radiator  
that's made  
in the size  
you want,  
and in the  
shape your  
client likes**



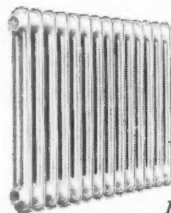
*Double Wall*



*Angle-Wall*



*3-Column*



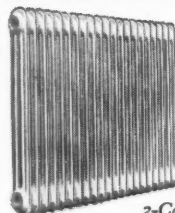
*Easy Clean*

Now who would have thought the Stelrad Steel Radiator had been with us for nigh on twenty-five years?

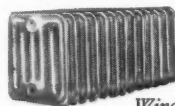
Why, you can probably remember people telling about it at the time.

***Stelrad* PATENTED PROCESS RADIATORS**

Some were doubters, holding forth about steel and how the only Radiator to use was one that was not only heavy to handle but ungainly to behold. But where is the Stelrad today? In buildings large and small throughout the length and breadth of the land, and in a range so wide there is not a single nook a Stelrad cannot heat.



*2-Column*



*Window seat type*

**STEEL RADIATORS LIMITED**

BRIDGE ROAD, SOUTHALE, MIDDLESEX • Telephone: SOUTHALE 2603



# SMART SCHOOLS . . . .

## have "Superlative" Eggshell Finish on their walls . . .



## and **LUXOL** Polyurethane Lacquer on their floors . . .

### COLOUR ADVISORY SERVICE FOR SCHOOLS

*This special department of British Paints Limited will plan colour schemes for entire schools, or parts of schools freely and without obligation. You are cordially invited to make use of this service.*

'Superlative' Eggshell Finish is of special interest for school decoration. It is comparable with full gloss paints for general serviceability indoors, but possesses a distinctive eggshell lustre which provides a most dignified and pleasing appearance. For walls, ceilings and woodwork in 52 lovely colours.

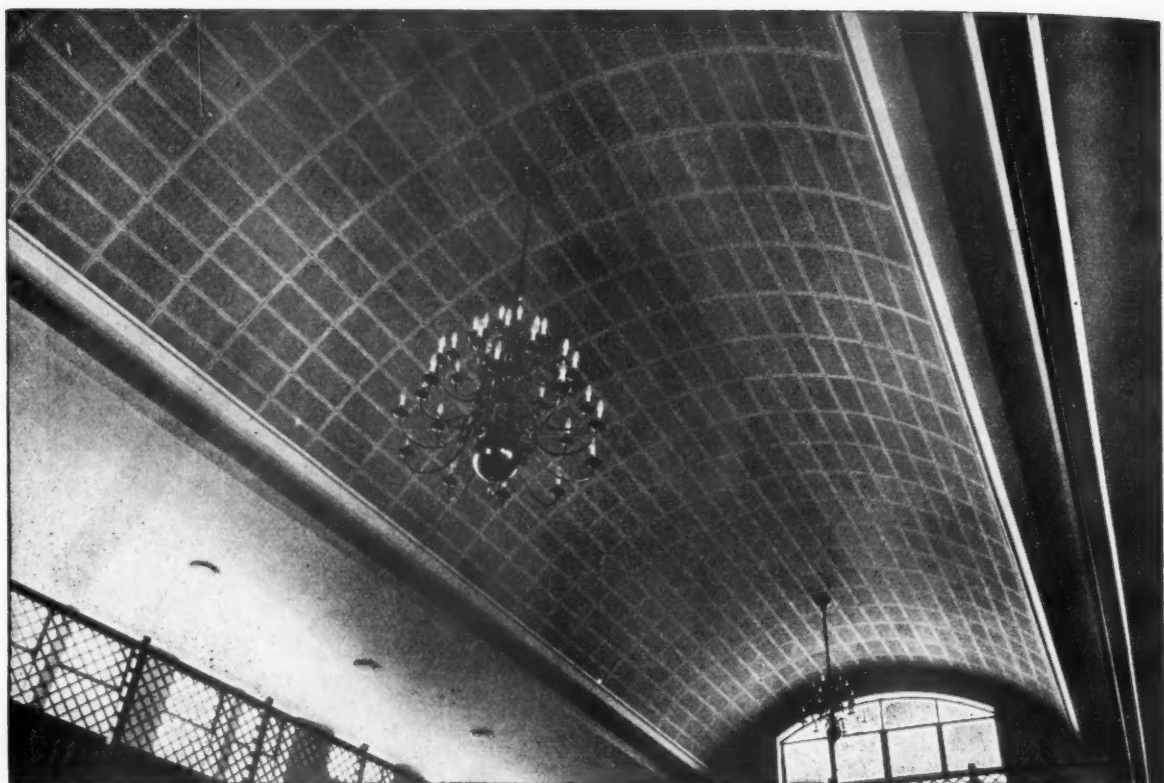
**Luxol Polyurethane Lacquer** is the year's most brilliant newcomer to the list of floor coating materials. Luxol Polyurethane Lacquer maintains its lustre for long periods without polishing; protects the floor covering from wear, and because its surface is of such exceptional hardness dirt is less adherent and is more easily removed with a damp mop — these are its unrivalled qualifications for school use.

### BRITISH PAINTS LIMITED

Portland Road, Newcastle upon Tyne, 2.  
Northumberland House, 303-306, High Holborn, London, W.C.1. 31, Wapping, Liverpool.



BELFAST, BIRMINGHAM, BRISTOL, CARDIFF, GLASGOW, LEEDS, MANCHESTER, NORWICH, PLYMOUTH, SHEFFIELD, SOUTHAMPTON, SWANSEA, and all principal towns.



# SUNDEALA

## SUSPENDED CEILINGS

Visible or concealed Sundeala Systems afford excellent thermal and sound insulation. They are available with standard insulation board treated to give Class I resistance to Spread of Flame OR ANY KNOWN RIGID SHEET MATERIAL.

### SUNDEALA BOARD CO. LTD.

**Head Office:** Columbia House, Aldwych, London WC2 Telephone: CHAncery 8159

**Newcastle:** Northumbria House, Portland Terrace 2 Telephone: Newcastle 81-4323 (2 lines)

**Scotland:** S. H. Nunn, Eglinton House, Eglinton Estate, Kilwinning, Ayrshire Telephone: Kilwinning 284

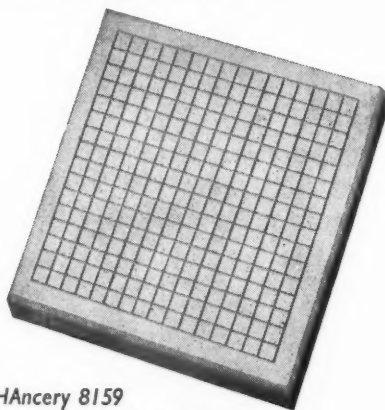
**Plymouth:** Telephone: 68805/6

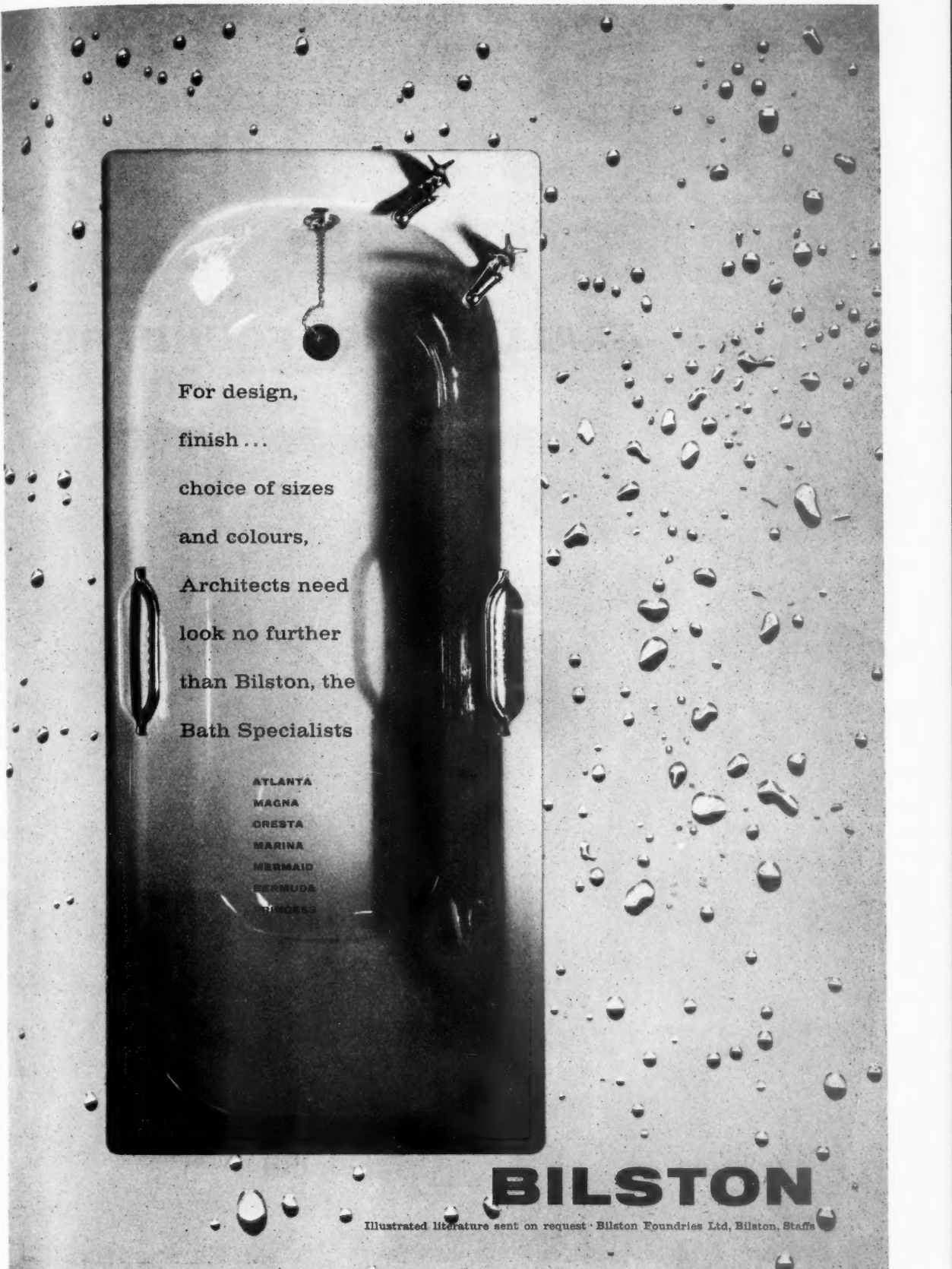
*Sundeala also manufacture*

**HARDBOARD • MEDIUM HARDBOARD • PEG BOARD • REEDED HARDBOARD • TEMPERED HARDBOARD**

Installation at Brent Synagogue, N. London.  
The Barrel Vault ceiling is lined with Sundeala Acoustic Tiles, 2 ft. x 1 ft., secured by means of a concealed Sundeala Fixing System.

ARCHITECTS: H. V. Ashley and Winton Newman F|RIBA  
CONTRACTORS: Messrs. Moss & Sons Ltd.





For design,  
finish...

choice of sizes  
and colours,

Architects need  
look no further  
than Bilston, the  
Bath Specialists

ATLANTA  
MAGNA  
ORESTA  
MARINA  
MERMAID  
BERMUDA  
PROGRESS

**BILSTON**

Illustrated literature sent on request · Bilston Foundries Ltd, Bilston, Staffs

**PROMPT PIPESMEN WHO NEED NO PROMPTING** Pipesmen Grant, Maddox, Powell and Pacitti cover four of the nine internal service areas in Britain. Their pledge (along with our five other pipesmen, too busy to pose for the photographer!) is 'delivery on the dot'. Which ever area you are in, there is someone ready to ensure that your order for Allied cast iron pipes, gutters and fittings is carried out promptly. He is your personal pipeline to the Allied Service. You will issue your order or send him drawings. He will take off the quantities required and send you any information you may need. You can depend on it—and him. For area 1 Telephone Stockton 65291; for area 9, Falkirk 2441; for all other areas, Wellington (Salop) 510.



rainwater and soil goods division of **ALLIED IRONFOUNDERS**

KETLEY, WELLINGTON, SHROPSHIRE

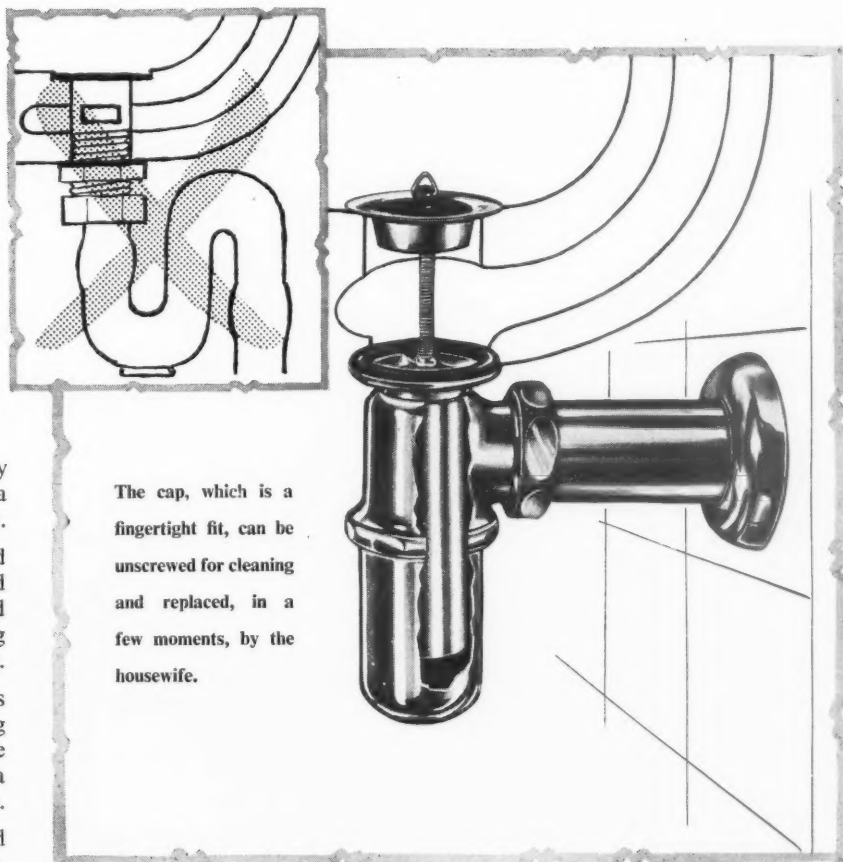




CUT OUT OLD-FASHIONED PLUMBING

with this

# MODERN HYGIENIC TRAPPED WASTE



No longer is it necessary to hide ugly plumbing with a pedestal or cabinet.

Fit this beautifully designed Trapped Waste and keep floor clear beneath hand basin for easy cleaning and polishing.

Each Bottle Trap is superbly finished in gleaming chrome and can be supplied either with a metal or plastic cleaning cap.

Outlet can be supplied either to wall or floor.

The cap, which is a fingertight fit, can be unscrewed for cleaning and replaced, in a few moments, by the housewife.

**FOR THE MERCHANT** Only one waste to suit all basin thicknesses.

**FOR THE PLUMBER** Easily fixed, requires no special tools—  
Instantaneous rubber seal beneath sink—  
Eliminates the necessity for putty and hemp joints.

*Price and further particulars on request.*



**BARKING BRASSWARE CO. LIMITED**  
Dept. RAIL. • RIVER ROAD • BARKING • ESSEX

There is nothing to equal

**LEAD**

for cornice

weatherings

LEAD DEVELOPMENT ASSOCIATION

18, ADAM STREET, LONDON, W.C.2. Telegrams: Leadevop, Rand, London. Telephone: WHIttehall 4175

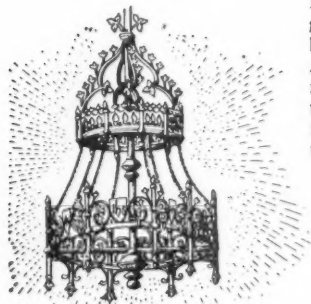
h

**THE LEAD SHEET & PIPE  
TECHNICAL  
INFORMATION BUREAU**

advises on the use of Lead in building work. Most of the many uses are detailed in the Association's publications, and in addition the Bureau's technical officers are always glad to give individual assistance.

52/60

1810



**150 years of advancement**

In 1810 we made this early type of ecclesiastical chandelier fitted for gas when it was the last word in elegant efficiency. Today—150 years later in our progressive services used by the United Kingdom Atomic Energy Authority and by many large manufacturers, it remains a symbol of the traditions of Z. D. Berry & Sons—traditions of quality and craftsmanship. It is also a reminder that nothing is new for long; that progress demands constant effort and an unrelenting search for newer ideas and techniques.

ENGINEERING SERVICES by

**Z.D.BERRY**  
& SONS LTD.  
Founded 1810

1960



HEATING, VENTILATING, AIR CONDITIONING  
PLUMBING, INDUSTRIAL PIPEWORK

Z. D. BERRY & SONS LTD., 16 REGENCY ST., LONDON, S.W.1 and at WARRINGTON & DONCASTER

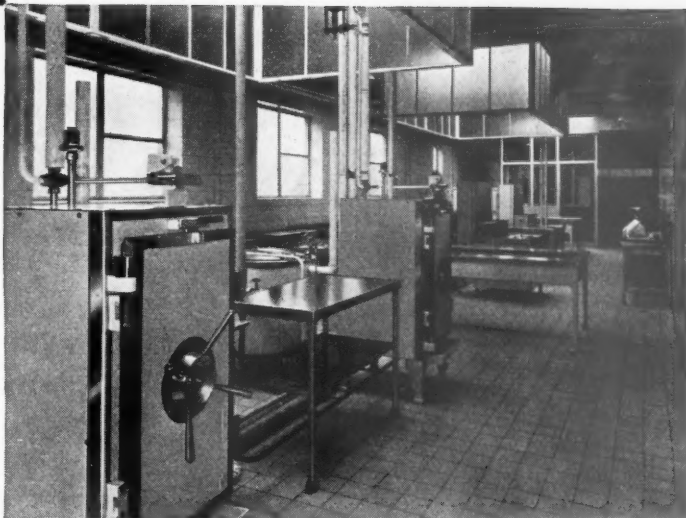
TAS/ZB.30

# Moorwoods

## Makers of large scale cooking equipment and complete kitchen installations

Architects throughout the country have entrusted the equipping of canteens and kitchens to Moorwoods—the firm they know will plan and build to the highest standards.

The steaming oven in the foreground of the illustration, like all the rest of the equipment in this modern works canteen, came from Moorwoods. We shall be pleased to learn of your requirements.



## Moorwoods Ltd *For people who are satisfied with the best*

HARLESTON IRON WORKS SHEFFIELD 4. Phone: SHEFFIELD 23063 (4 lines)  
London Office: VINCENT HOUSE, VINCENT SQUARE, LONDON S.W.1. Phone: Tate Gallery 2591

M17

RESIN BONDED GLASS FIBRE

## POWERED ROOF VENTILATOR



The most economical and efficient form of industrial ventilation. Incorporating the very latest plastic materials for strength, lightness, and resistance to atmospheric corrosion. Powered by propeller fan to give positive ventilation. Light enough for corrugated iron roofs.



AN IMPORTANT NAME IN VENTILATION

**Industrial Fan & Heater Co. Ltd**  
*Airflo* WORKS, BIRMINGHAM, 11. phone: VIC 2277

and at LONDON, MANCHESTER, SWANSEA  
A MEMBER OF THE SIMMS GROUP OF COMPANIES

# CUPRINOL

## WATER REPELLENT WOOD PRESERVERS



CUPRINOL W.R. Clear and W.R. Green combine water repellency with the preservative properties of CUPRINOL, which have been proved in use for nearly fifty years. By stabilizing movement in timber, they minimise the swelling and shrinking of wood under changing moisture conditions.

CUPRINOL W.R. grades also prevent attack by wood-boring beetles and rot; can be painted or varnished over. Easy to apply on site by dipping. Suitable for vertical boarded shop fascias, boarded cladding to buildings, doors, ladders, window frames and all joinery exposed on building sites prior to being built in.

THE CUPRINOL PRESERVATION CENTRE offers technical advice on all preservation problems and can arrange Surveys, Reports and expert treatment of outbreaks of Dry Rot and Woodworm in any part of the country.

**CHECK SWELLING  
AND WARPING**

Please write or telephone: —

Dept. 4, CUPRINOL LTD., Terminal House, Victoria, London, S.W.1. Tel: SLOane 9274

When you meet problems of  
**woodworm  
and dry rot** remember that  
we have been successfully combating insect and fungal  
destroyers of timber for 23 years and that our  
wealth of practical experience is at your disposal.  
Information and advice are gladly given and we  
operate a pressure spray hire service for contractors  
and others desiring to use our effective control materials  
**WYKAMOL, WYKAMOL PLUS and MUROSOL**  
Problems demanding expert attention can be handed  
with confidence to our specialist survey and  
treatment services. We guarantee, with no time  
limit, the complete efficacy of unrestricted treatment  
undertaken by our own operatives.



Write for full details to:

**RICHARDSON & STARLING LTD.**

THE TIMBER DECAY ADVICE BUREAU

(Dept. B.A.) Hyde Street, Winchester

MEMBERS OF THE BRITISH WOOD PRESERVING ASSOCIATION



## A PROGRESSIVE NEW BUILDING...

The Domestic & Trades

College, Manchester

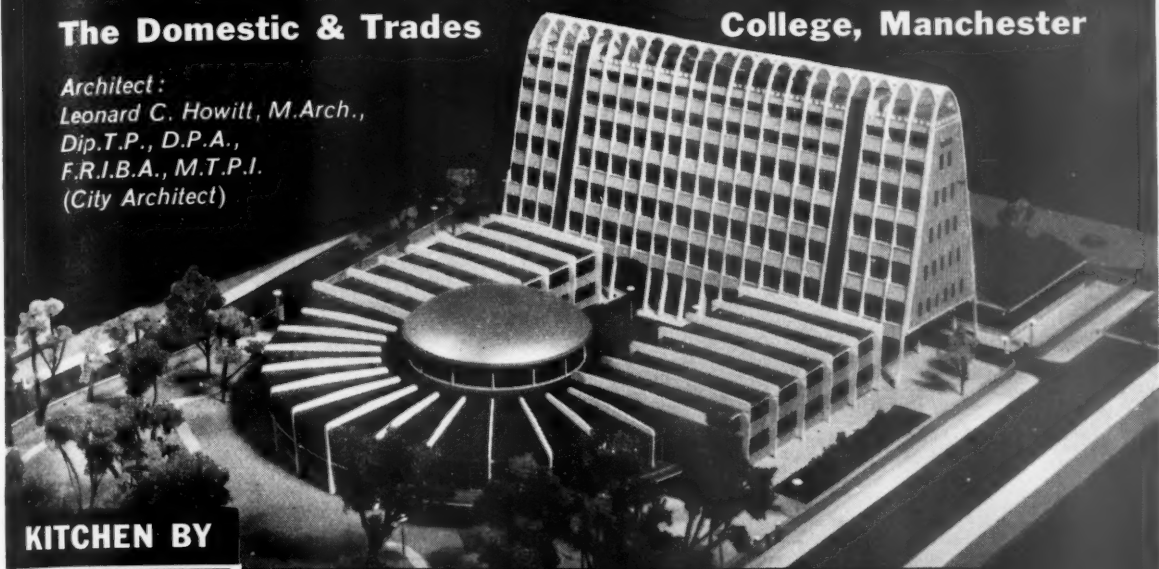
Architect:

Leonard C. Howitt, M.Arch.,

Dip.T.P., D.P.A.,

F.R.I.B.A., M.T.P.I.

(City Architect)



KITCHEN BY

**BENHAM**

### BENHAM AND SONS LIMITED

66 WIGMORE ST., LONDON W.1.

TEL: HUNter 44 22 (24 lines)

KITCHEN ENGINEERS • COOKING APPARATUS MANUFACTURERS

Birmingham • Bournemouth • Brighton • Cardiff • Glasgow • Manchester • York

**Tabula  
Chalkboards  
Limited**  
YEOVIL

## SCHOOL CHALKBOARDS

*we specialise in the design and  
manufacture & our range includes*

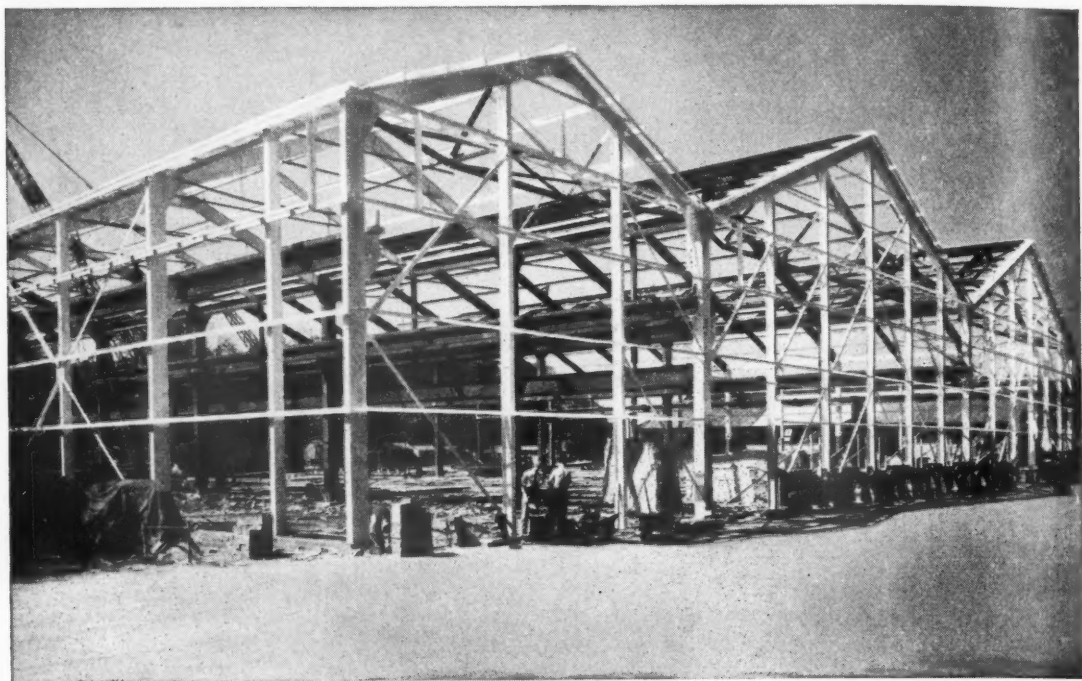
**CLASS BOARDS**

**SLIDING MODELS**

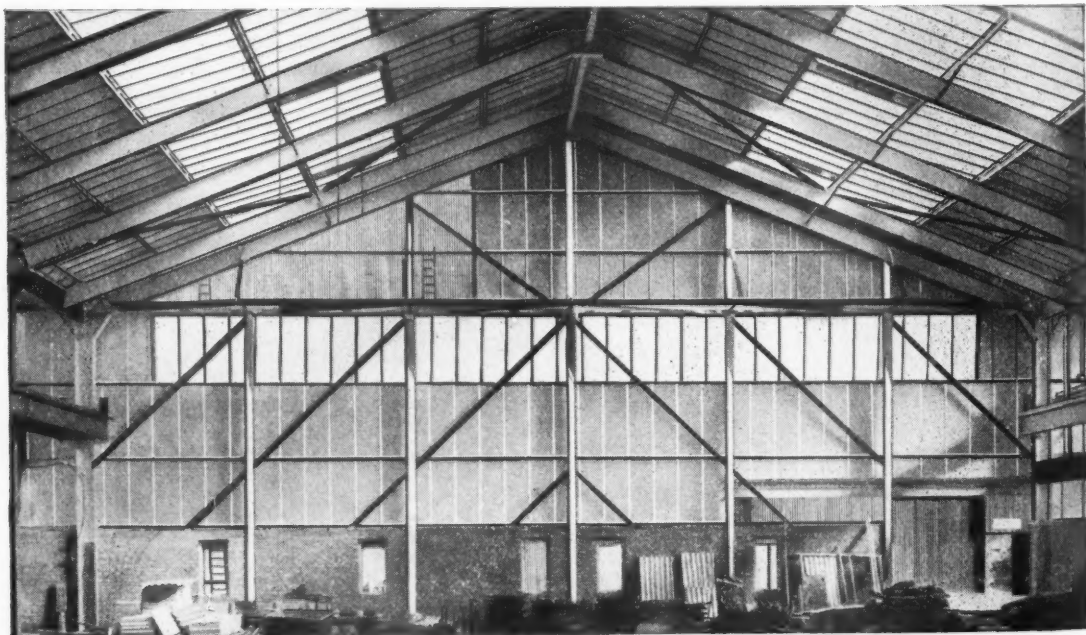
**FIXED WALL BOARDS**

**MOVEABLE EASEL TYPES etc.**

# Braithwaite Steelwork



Structural Steelwork supplied and erected for the new Sendzimir rolling mill of Messrs Birmetals Ltd. at Birmingham



## **BRAITHWAITE & CO. ENGINEERS LIMITED**

*London Office : Dorland House, Regent Street, London, SW1.*

*Telephone: WHitehall 3993 • Telegrams: Bromkirk 'Phone London • Telex: 23320*

**BRAITHWAITE & CO. STRUCTURAL LIMITED**

**BRAITHWAITE FOUNDATIONS & CONSTRUCTION LIMITED**

Printed in Great Britain by Unwin Brothers, Ltd., Woking and London  
All communications regarding Advertisements in this Journal should be addressed to the Advertisement Manager, R.I.B.A., 66 Portland Place, London, W.1  
Telephone: Langham 2271



## It pays you and your clients to put in *solid fuel* central heating

**Lowest running costs.** The big news in central heating these days is the amazing cheapness of the solid fuel systems. For example, the average weekly running cost for a two- or three-radiator system can be as little as 9/9d! Just compare that with oil, gas and electricity—see chart on right.

**Lower installation costs.** Compared with oil, solid fuel systems are much cheaper to buy and install. The new solid fuel boilers are really streamlined and require very little attention. They are thermostatically controlled and finished in gleaming vitreous enamel in a range of modern colours.

**N.C.B. Housewarming Plan**—offers a personal loan to cover the whole cost of a central heating installation. Low interest—five years to pay—tax relief.

**Lowest maintenance costs.** Solid fuel systems cost practically nothing to maintain. But with other fuels, skilled maintenance is necessary and this can cost from £5 to £15 per year—another 2/- to 6/- a week on the running cost.

**Compare the costs.** These are typical weekly costs, averaged over the year, for centrally heating a three-bedroomed house or bungalow—and hot water summer and winter. Look how much cheaper solid fuel is.

6 or 7 radiators and hot water ▼			
2 or 3 radiators and hot water ▼			
<b>COKE</b> in independent boiler	9/- per cwt	9/9d	15/-
<b>SMALL ANTHRACITE</b> in gravity feed boiler	12/- per cwt	—	14/1d
<b>GAS</b>	1/4d therm plus, say, 2/8d a week standing charge	16/1d	23/6d
<b>ELECTRICITY</b>	1d unit (No standing charge included)	18/2d	29/10d
<b>OIL</b>	1/5½d gallon	*12/10d	*22/8d

\* plus 2/- to 6/- a week maintenance cost.

**Write for FREE booklet** on Central Heating and list of other technical publications to the Coal Utilisation Council, 3 Upper Belgrave Street, London, SW1. Also available 'Central Heating for Houses', a complete 120-page illustrated survey of all the various systems available, from the open-fire-and-back-boiler to the small pipe system. Copies 2/6d each.

The cheapest  
central heating  
there is –  
**SOLID FUEL**



ISSUED BY THE COAL UTILISATION COUNCIL





STAINED GLASS & LEADED GLAZING

❖ STEEL & BRONZE WINDOWS ❖

SUPERIOR STANDARDS · 'ALL CLEAR' SLIDING  
& SOUNDPROOF WINDOWS · LANTERN-LIGHTS  
DOMES AND ORNAMENTAL IRONWORK

C. E. WELSTEAD

LTD.

*St. Andrew's Works,*

TANFIELD ROAD

TELEPHONE

CROYDON

CRO 3484



